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NEW TECHNOLOGY ADOPTION IN DEVELOPING COUNTRIES: 
THE ROLE OF BUYER-SUPPLIER RELATIONSHIPS

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ABSTRACT

Developing countries depend on foreign providers to ensure successful adoption of new technology. This paper investigates the role of buyer-supplier relationships (BSR) in technology adoption using a survey of 147 Malaysian firms. In particular the authors examined the impact on performance of different patterns of buyer-supplier relationship.

Results show that firms demonstrating closer relationships with their suppliers are more likely to achieve higher levels of performance than those that do not. There are also insights that are especially pertinent to an improved understanding of buyer-supplier relationships in the procurement of capital equipment, about which the current research literature is limited.

KEYWORDS: Advanced manufacturing technology; Buyer-supplier relationships; technology implementation; performance.

INTRODUCTION

Manufacturing research literature highlights that competitive capabilities are built upon both structural aspects (e.g. technologies or processes) and infrastructural aspects (e.g. management or people) (Monge et al., 2006; Small and Yasin, 1997a; Wheelwright, 1984; Wheelwright and Hayes, 1985). The ability to master technological competencies has underpinned the remarkable industrial achievements of Asian countries like Korea and Taiwan. These countries have evolved from being acquirers of foreign technology from industrialised countries during their early stage of industrialisation into becoming developers of their own technological capability.
Since becoming industrialised both Korea and Taiwan have subsequently moved rapidly into new technology fields, and now achieve world-class levels in areas of state-of-the-art technology, especially in semiconductors and telecommunications. By comparison, Malaysia has not yet achieved the same level of technological capabilities compared with Korea and Taiwan (Rasiah, 2004). However, Malaysia is on a mission to transform its manufacturing industry into a resilient, broad-based and internationally competitive sector. The Malaysian government has also continued to play a key role in the promotion and execution of newer technologies among local manufacturing companies. The Second Industrial Master Plan (IMP2) 1996-2005 has been responsible for moving the whole value chain in the Malaysian manufacturing sector to a higher level through productivity-driven growth achieved by the use of advanced technologies such as automation and robotisation.

Manufacturing is the main contributor to Malaysia’s growth and GDP and in 2007 the economy expanded by 6.3 percent with manufacturing being the strongest industrial sector. The country's manufacturing demand for the latest technologies is valued at MYR 30 billion, or approximately USD 8.7 billion, a year (Business Times. Kuala Lumpur, 24 April 2006, p.45). However, during this phase of accelerated industrialisation, most of the technology has been acquired from overseas through various transfer arrangements, and Malaysia remains a net importer of machinery and equipment to meet its industrial needs. In 2004 alone, imports of machinery and equipment into Malaysia amounted to MYR 33.1 billion, or approximately USD 9.6 billion (Malaysia Economic Report, 2004/2005).

With an increasingly competitive business environment firms have continued to invest in state-of-the art equipment and facilities in order to strengthen the structural aspects of the business. Advanced manufacturing technology (AMT) is absolutely crucial to the success of a manufacturing operation as it impacts upon both organizational and operational performance (Monge et al., 2006; Raymond, 2005). The performance of companies using AMT not only depends on the technology itself, but to a large extent on how well it is implemented (Efstathiades et al., 2000; Waldeck and Leffakis, 2007). In any new technology adoption implementation remains the biggest issue, having been recognised by practitioners and widely reported by researchers as a major source of project failure. Several past empirical studies revealed that implementing AMT has often not been either as successful or as straightforward as expected and many firms are still struggling with AMT implementation (Da-Costa et al., 2006; Gupta et al., 1997; Hottenstein et al., 1999; Sambasivarao and Deshmukh, 1995). In the process of adopting the technology users are confronted with various problems that arise during the implementation process as many firms learn by doing (Baldwin and Lin, 2002).

Within the body of AMT research several studies have been undertaken to identify critical success factors for technology acquisition and implementation. As a result of this research many factors have been identified as having a significant impact on the success or failure of AMT implementation, as well as on the potential enhancement of the implementation process. One important factor in the enhancement of the success of technology acquisition and implementation is the role of the technology supplier
(Udo and Ehie, 1996; Zairi, 1998; Zhao and Co, 1997), since lack of vendor support has been associated with impediments to technology acquisition and implementation (Baldwin and Lin, 2002). However, despite the widely claimed crucial role of technology suppliers in implementing AMT (Kaighobadi and Venkatesh, 1994; Saleh et al., 2001; Sohal and Singh, 1992; Udo and Ehie, 1996; Zairi, 1992b; Zhao and Co, 1997), very limited knowledge has been gained in this area as only few studies have specifically focussed on the implementation issue. The claim that the technology supplier’s role is imperative in AMT implementation was identified through the wide investigation of factors that facilitate or hinder the implementation process. The aim of the investigation reported in this paper was therefore to undertake an empirical and quantitative survey based investigation to establish the relationship between BSR and AMT acquisition and implementation performance. The empirical evidence required for this investigation was collected from buyers of AMT in Malaysian manufacturing industry across a range of sectors.

**AMT AND THE IMPLEMENTATION ISSUES**

The literature generally agrees that AMT can be defined widely as a group of computer-based technologies, which includes computer-aided design (CAD), computer-aided manufacturing (CAE), manufacturing resources planning (MRPII), robotics, group technology, flexible manufacturing systems (FMS), automated materials handling systems, computer numerically controlled (CNC) machine tools, and bar-coding or other automated identification techniques (Cook and Cook, 1994; Lewis and Boyer, 2002; Millen and Sohal, 1998; Sambasivarao and Deshmukh, 1995; Stock and McDermott, 2001; Zairi, 1992a; Zammuto and O'Connor, 1992). The authors’ research applies the existing definition of AMT but extends this to include any technology, which is new or advanced to a company when compared to its previous or current manufacturing technology. The study focuses on the hard form of AMT as well as soft technologies when they are embedded in hardware rather than being transferred independently.

Despite the advantages of AMT, its implementation does not guarantee that a firm will reap all the potential benefits being offered (Gupta et al., 1997; Meredith, 1987; Small and Yasin, 1997a). Indeed, a number of research studies indicate that the benefits from such investments have not been fully realised (Baldwin and Lin, 2002; Lei et al., 1996; Meredith, 1987; Moller et al., 2003; Sohal, 1996; Udo and Ehie, 1996; Zammuto and O'Connor, 1992). In some cases, firms that reported successful implementation of AMT were not exploiting the full benefits that were being offered (Inman, 1991). Boer et al. (2003) reported that manufacturing companies are not benefiting from AMT owing to technical difficulties, such as problems with standardisation and the integration of hardware and software after installation. Park (2000) highlighted one of the problems as a lack of absorptive capabilities to internalise AMT due to managerial deficiencies and organisational obstacles. Udo and Ehie (1996) attributed poor performance to the lack of appreciation of the degree of complexity and challenge that such implementation might entail. Babbar and Rai (1990) reported that the problem lies not in the level of technology, but rather in its
implementation. Frohlich (1999) warned practitioners that the threatening obstacles associated with AMT implementation are not decreasing, and may even be increasing.

Since the success of AMT in achieving competitive advantage depends primarily on correctly selecting and properly managing AMT projects (Cook and Cook, 1994) enormous amounts of research have been undertaken, from which various factors have been found to affect the success of AMT acquisition and implementation. For instance, Frohlich (1999) found that information systems adaptation during the course of AMT implementation is the most important action to enhance AMT success. Zammuto and O’Connor (1992), on the other hand, recognised the importance of firm design and culture to the potential outcomes of an AMT investment. Efstathiades et al. (2002) drew attention to the importance of planning to the success of AMT implementation.

In light of the above discussion of the relevant literature it can be seen that much of the previous research on examining critical success factors has been identified and carried out with regard to the factors internal to the firm (see Efstathiades et al., 2000; Frohlich, 1999; Millen and Sohal, 1998; Small and Yasin, 1997b; see Zammuto and O’Connor, 1992; Zhao and Co, 1997). In addition to the various internal factors applicable to the users themselves, there are other factors which tend to inhibit or facilitate the implementation process, and which are external to the users, pertaining mainly to the suppliers of AMT (Zairi, 1992b). Studies by Udo and Ehie (1996) and Zhao and Co (1997) indicate that supplier support and/or relationship with the technology supplier are the only factors external to the organisation that were found to be significant in terms of the success of AMT implementation. No doubt this factor was found to be significant in determining AMT implementation success. Indeed, the need to establish good links with suppliers has been reported to be of paramount importance in successful AMT implementation (Bessant, 1994; Burgess et al., 1997; Fynes and Voss, 2002; Gupta et al., 1997; Kaighobadi and Venkatesh, 1994; Sohal, 1999; Sohal and Singh, 1992), yet very few studies have been conducted in relation to this issue.

Efstathiades et al. (2000) cautioned that the process of technology transfer is very complicated and requires skills and managerial know-how of the acquiring firm. In their study of technology transfer in developing countries, Saad et al. (2002) found that dependence on external/foreign assistance for management and skilled operations is still significant and that the technology buyer remains entirely dependent on suppliers from overseas. Difficulties such as breakdowns, delays in delivery of spare parts, and repairs that have to be dealt with by foreign experts located abroad, lead to long delays in production schedules. These explain the chronic gaps between forecast and actual rates of production due to under-utilisation of the technology.

Therefore, in the context of a developing country like Malaysia, where the local technological capabilities are relatively low and most of the technology has been acquired and transferred from a foreign country, the problem of not fully realising the benefits of acquired technology could be even more apparent. According to Zhao and
Co (1997), barriers in the transfer of technology, lower wage rates, size of the firms and the paradigm of competition may be some of the compelling reasons to suspect that the factors affecting AMT adoption in industrialised countries may be different from those applying in newly-industrialised countries. More often than not, the buyer of technology is in a weak position, especially when dealing with a stronger and more experienced supplier from an industrialised country (Efstathiades et al., 2000). Hipkin and Bennett (2003) highlight the fact that technology acquiring organisations in developing countries must take the initiative to use suppliers and networks to reap the full range of benefits from the new technologies. Thus, referring to the research objectives introduced in the earlier section, this circumstance provides further motivation to seek evidence from Malaysian manufacturing industry concerning these issues.

BSR AND THE AMT ACQUISITION AND IMPLEMENTATION PROCESS

Since the late 1980s research in BSR has received increasing attention, especially as it has become widely known that various benefits can be enjoyed by developing closer relationships with suppliers. As noted by Tang et al. (2001), buyer-supplier relationships (BSR) have evolved towards a new form in order to respond to intensified competition in industry. The movement towards closer co-operation between buyers and suppliers also results from the global and competitive market place that focuses on cost, quality, delivery, flexibility, and technology, which subsequently create a greater need to emphasise inter-firm collaboration with various business partners. Dwyer et al. (1987) described a continuum of different types of buyer-supplier relationships, believing that firms engage in co-operative BSR because they expect to benefit from them. Only as long as the firms perceive a benefit from the relationship do they continue in a co-operative fashion.

The review of the literature on BSR denotes three important observations. Firstly, there is increased evidence that suggests buyer-supplier relationships are of paramount importance for firms because such relationships can create value for both the parties involved. Secondly, while the issues surrounding supplier alliances have been discussed in the purchasing and marketing fields they have been less frequently addressed in the Operations Management (OM) field (McCutcheon and Stuart, 2000). Finally, although buyer-supplier relationships have been studied from various research streams, efforts have been concentrated on the relationships with industrial suppliers rather than on those with the capital equipment suppliers. In fact, within the limited BSR research in the OM field, investigations are still predominantly on the relationships with industrial suppliers, and hence knowledge on buyer-supplier relations in the procurement of capital equipment remains limited and inadequate.

The issue of developing close relationships with suppliers is equally important with regard to capital equipment suppliers. Sako (1992) highlighted that technology transfer and training (of which AMT acquisition is a sub-set) is one of the three major areas where supplier relationships may not be strictly arm’s length, but may require some moderate to extreme extensions from the traditional arm’s length relationships.
Referring to technology transfer as the movement of technology from one organisation to another, that is across the organisational boundaries of the source and recipient, Stock and Tatikonda (2000) observed that even when the technology is functional in its present form and less complex, due to the lack of expertise or experience the recipient may not know how to immediately utilise it.

Therefore, there may be a need for more communication, co-ordination and co-operation between the AMT recipient and the supplier than in an arm’s-length purchase mode of transfer. Stock and Tatikonda (2000) also argued that when the technology is much more complex, unfamiliar to the recipient, and must be customised to some extent so it is not in completed form when it arrives at the recipient’s facility, greater communication, co-ordination, and co-operation are required. AMT, by its nature, is a complex technology, especially for firms that have no previous experience in automation. And even with previous experience, each technology embodies specialised know-how that differentiates the product. Not all firms possess the ability and know-how about the technology, especially when it is not the type of product that the firm buys on a regular basis, such as in the purchase of parts and components. Zairi (1998) noted that the complex nature of the technology and the limited knowledge and experience of users led to difficulties for users in specifying their own technical requirements, without a close involvement of suppliers. Saleh et al. (2001) reported the technology supplier can add value to the overall success of technology implementation.

Despite the widely claimed crucial role of technology suppliers in AMT implementation (Kaighobadi and Venkatesh, 1994; Saleh et al., 2001; Sohal and Singh, 1992; Udo and Ehie, 1996; Zairi, 1992b; Zhao and Co, 1997), very limited knowledge in this area has been gained as only a few studies have focussed specifically on this issue. The claim that the technology supplier’s role is imperative in AMT implementation was identified through the wide investigation of factors that facilitate or hinder the implementation process, no studies have systematically tested the impact of BSR on performance. Previous research that examines factors affecting the AMT adoption success often take a broader view of performance achievement when, in fact, performance associated with the technology supplier should be associated more closely to the monitoring of implementation performance. To date, most of the empirical results on the effect of the technology buyer and supplier relationships (BSR) in AMT implementation have been supported by case studies (Sohal and Singh, 1992; Zairi, 1992a; Zairi, 1992b, , 1998), and evidence from survey research is rather limited. Consequently, there has not yet been any development of a quantitative research instrument to assess the strength of BSR in AMT acquisition and implementation and for this reason, its association with performance remains difficult to explore. Therefore, there is a need to further investigate this issue from another methodological perspective.

This investigation also asserted that it is useful to deconstruct further the concept of ‘performance’. The performance of AMT has conventionally been viewed in terms of the improvement of manufacturing performance derived from the AMT implementation. For instance, Gupta et al. (1997) used the internal benefits of AMT,
namely changes in quality, production costs, availability, dependability, and production schedule, as a measure of manufacturing performance. On the other hand, Cagliano and Spina (2000) used unit manufacturing costs, conformance to specification, inventory turnover, delivery lead time, on-time deliveries, manufacturing lead time, time-to-market, and product variety as a measure of manufacturing performance improvement as a result of AMT adoption. For the purpose of this study, manufacturing performance improvement resulting from the application of AMT was termed ‘technology performance’. This aspect of performance was termed by this study as ‘implementation performance’ and the delineation led to the following hypotheses being proposed:

**H1**: There is a link between the strength of BSR and technology performance.
**H2**: There is a link between the strength of BSR and the implementation performance.

**METHODOLOGY**

**Data Collection and Operationalization**

The population for the study was the Malaysian manufacturing sectors that had acquired advanced manufacturing technology within the past five years, which was the length of time suggested by Burgess and Gules (1997) and Frohlich (1999). The population frame was the Federation of Malaysian Manufacturers (FMM) Directory of 2003. The questionnaire was mailed to the target population, together with a covering letter, a postage-paid return envelope, and a postage-paid reply postcard with an identifying number/code of the actual respondent. The data collection efforts yielded 147 usable questionnaires, so the response rate achieved in this study was around 8%.
TABLE 1: INDICATORS OF BSR AND SUPPORTING REFERENCES

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<td>Trust</td>
<td>(Benton and Maloni, 2005; Burcher et al., 1999; Fynes and Voss, 2002; Guimaraes et al., 2002; McCutcheon and Stuart, 2000; Sako, 1992; Stump and Sriram, 1997; Swink and Nair, 2006)</td>
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<tr>
<td>Business Understanding</td>
<td>(Burcher et al., 1999; Guimaraes et al., 2002; Joshi and Lauer, 1998)</td>
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<tr>
<td>Involvement</td>
<td>(Burcher et al., 1999; Dyer, 1997; Guimaraes et al., 2002)</td>
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<td>Commitment</td>
<td>(Benton and Maloni, 2005; Burcher et al., 1999; Burgess et al., 1997; Dyer, 1997; Fynes and Voss, 2002; Guimaraes et al., 2002; Sako, 1992; Swink and Nair, 2006)</td>
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<td>Communication</td>
<td>(Burcher et al., 1999; Burgess et al., 1997; Carr and Pearson, 1999; Fynes and Voss, 2002; Guimaraes et al., 2002; Sako, 1992)</td>
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<tr>
<td>Information Sharing</td>
<td>(Burcher et al., 1999; Burgess et al., 1997; Dyer, 1997; Fynes and Voss, 2002; Stump and Sriram, 1997)</td>
</tr>
<tr>
<td>Knowledge acquired</td>
<td>(Kotabe et al., 2003; Moller et al., 2003; Sako, 1992)</td>
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The operationalisation of BSR in this study was measured in terms of the strength of relationships between the technology buyer and the technology supplier. Seven dimensions that have been commonly used in the literature to denote BSR were used, these being: trust, business understanding, involvement, commitment, communication, information sharing, and knowledge acquired. Table I summarises previous research studies that have used each of these indicators to measure BSR. These dimensions are treated at a construct level and it is proposed in the present research that they are strong indicators of a higher order construct, which is referred to as relationship strength. The items on each construct were specially developed to reflect buyer-supplier relationships in AMT acquisition and implementation.

This study measures performance in terms of technology performance and implementation performance. Technology performance was operationalized using the achievement in manufacturing performance since the adoption of the technology. Although various aspects of manufacturing performance have been explored, the literature indicated that the aspects of lead time, cost, quality, and efficiency have been frequently marked as hallmarks of AMT. In this study, respondents were asked to subjectively rate the achievement in manufacturing performance in terms of reduction in lead time, reduction in cost, increase in quality, and increase in efficiency and flexibility since the adoption of the technology.
Aspects of implementation performance mainly focus on the issues related to implementation. Items in the construct were largely grounded in practical information sought from practising managers during the field work. The measurement includes: time taken to fully implement the technology and to gain benefits from it, the amount of downtime caused by the technology, time taken to tackle any technical problem, and also the capability of the technology in fulfilling the implementation objective and improving manufacturing process and performance.

**Scale Development and Refinement**

The starting point for the questionnaire design was based on the conceptualisation and hypotheses developed in the research. This process involved an extensive review of the literature supported by information gained during the preliminary field work conducted in the early stage of the research. Then, the preliminary version of the questionnaire was subjected face and content validation.

Before the data were used to test the hypotheses, all items in the scale (BSR and Performance) were subjected to validity and reliability analysis. As for validity analysis, exploratory factor analysis (EFA) using principle component analysis (PCA) was conducted. This then was followed by confirmatory factory analysis (CFA) which was conducted during the analysis of measurement model under the first step of SEM technique. As this study involved scale development through exploratory and confirmatory analysis, it was expected that some variables would be dropped during these procedures. During EFA some items were dropped from the scale because they loaded into an unintended factor with low loading value. Several items were also dropped from the scale during the examination of fit of the measurement model through CFA. Each decision to drop an item from the scale was made based on the statistical evidence and a thorough consideration being given to the importance of the items to the research objectives. A measure of internal consistency is through the assessment of Cronbach coefficient alpha. If internal consistency is high, then the scale items have a strong relationship to each other. Nunally (1978) recommends a value of 0.70 as the threshold for the lowest acceptable level for alpha. For this study, coefficient alpha levels range between 0.76 and 0.90. Details are discussed in the next section.

**Testing the Hypotheses: Measurement and Structural Model**

All hypotheses in the study were tested simultaneously using the structured equation modelling (SEM) technique. SEM simultaneously measures multiple relationships among independent and dependent variables in one model (Bollen, 1989). Following Anderson and Gerbing (Anderson and Narus, 1990), a two-step approach using confirmatory analysis and SEM was followed. In SEM, the measurement model was first tested to validate the measurement instruments used in the study. Next the structural model is developed. The structural model differs from the measurement
model because it includes causal paths based on hypothesised relationships between specific factors in the model. A number of indices were used to determine whether the fit of the data to the model was adequate. One of the common fit assessment indicators is a Chi-square ($\chi^2$) statistics significant test in which a non-significant $\chi^2$ indicates that the model fits the data. However, this test receives much criticism due to its sensitivity to large sample size. To overcome the problem associated with the test, various alternative fit indices such as Goodness fit index (GFI), Composite fit index (CFI), and Root mean squared approximation of error (RMSEA) have been developed (Byrne, 2001). In this study, these were used as fit indices as they are the frequently used indices in organizational research to measure the discrepancy between the observed and estimated covariance matrices per degree of freedom (Hair et al., 2006). Byrne (2001) and Kelloway (1998) indicate that RMSEA values of less than 0.10 represent a good fit, while values below 0.05 represent a very good fit to the data. It was desired that both CFI and GFI be 0.90 or above (Byrne, 2001; Hulland et al., 1996).

i. **Buyer-supplier relationships (BSR)**

BSR consists of seven constructs namely, trust (TRUST), business understanding (BU), involvement (INVO), commitment (COMMIT), communication (COMMU), information sharing (IS), and knowledge acquired (KA). There were six items on the trust (TRUST) scale, five items on the business understanding scale (BU) scale, four items on the involvement (INVO) scale, five items on the commitment (COMMIT) scale, five items on the communication (COMMU) scale, five items on the information sharing (IS) scale, and five items on the knowledge acquired (KA) scale. Scales were simultaneously subjected to Principal Component Factor analysis (PCA). PCA revealed the presence of eight components with eigenvalues exceeding 1. Since the research context used seven constructs for the buyer-supplier relationship, a seven factor solution was chosen. The result revealed the presence of a simple structure, with components showing strong loadings into only five different factors. The trust and business understanding scales appeared to merge together as one scale, similar to the commitment and involvement scales.

The five-factor solution explained a total of 57.14% of the variance. The result of this analysis supports the use of only five factors that made up the buyer-supplier relationships. It suggests merging the trust and business understanding scales and labelling this the Trust and Business understanding (TBU) dimension. It also suggests merging the commitment and involvement scales, and entitling this Committed involvement (CI) dimension. Based on statistical evidence and through consideration of the suitability of the items in describing the concepts, a decision was made to use only five constructs to describe BSR, these now being: trust and business understanding, committed involvement, communication, information sharing, and knowledge acquired.

In the study, for the purpose of hypothesis testing, BSR was treated as a latent factor represented by the five different constructs identified above. Items from each
construct were averaged, and were then used as five different indicators of the latent BSR construct. Figure 1 indicates the graphical representation of the BSR model under SEM. CFA resulted in an inadequately fitting model of $\chi^2 (247) = 589.32$, $p = 0.00$; GFI = 0.77; CFI = 0.80, TLI = 0.78 and RMSEA = 0.10. As previously mentioned, although testing all the constructs together is preferable to testing each construct separately because of the ability to take into account the relationships between the indicators of different constructs, it should be noted that a large number of latent variables would find it difficult to fit such a model to predictions even with strong theoretical support (Joreskog and Sorbom, 1986).

**FIGURE 1: THE BSR CONSTRUCT AND ITS STANDARDISED COEFFICIENT**

Therefore, in this research, parcelling procedures were used as a more parsimonious estimation strategy. The main justification for using this procedure was to improve the variable to sample size ratio. By employing this strategy, the number of variables would also be reduced and hence the model’s degree of freedom is kept reasonable. Following the partial aggregation procedure recommended by Bagozzi and Heatherton (1994), items were combined by averaging them to create two indicators per factor. Indicators under each BSR construct were randomly aggregated to form a parcel.
The model was re-estimated with the aggregated indicators. CFA resulted in an adequate fitting model of $\chi^2(30) = 70.40, p = 0.00; \text{GFI} = 0.92; \text{CFI} = 0.94, \text{TLI} = 0.91$ and $\text{RMSEA} = 0.09$. The chi-square statistics were significant but other fit indices indicate a recommended level of indices, thus suggesting a well-fitting BSR measurement model.

### ii. Performance

The four items of the *technology performance* (TP) scale and six items of the *implementation performance* scale (IP) scale were simultaneously subjected to Principal Component Factor analysis (PCA). PCA revealed the presence of three components with eigenvalues exceeding 1, explaining 30.61%, 19.75%, and 10.16% of the variance respectively. An inspection of the screeplot revealed a clear break after the second component. To aid in the interpretation of these three components, Varimax $^1$ rotation was performed. The rotated solution yielded a clear solution with two factors (respectively reflecting technology and implementation measure of performance). The two-factor solution accounted for 50.36% of the total variance, with component 1 contributing 27.78% and component 2 contributing 22.58. The result of this analysis supports the use of *technology performance* and *implementation performance* as separate scales.

CFA for *technology performance* (TP) resulted in an adequate fitting model of $\chi^2(2) = 10.70, p = 0.01; \text{GFI} = 0.97; \text{CFI} = 0.94, \text{TLI} = 0.81$ and $\text{RMSEA} = 0.10$. The chi-square statistics were significant but other fit indices indicate a recommended level of indices, thus suggesting a well-fitting measurement model. Table 2 shows the finally-retained items with their corresponding standardised loading, and the reliability of the construct.

CFA for *implementation performance* (IP) resulted in an ill-fitting scale model. Standardised factor loadings for each item were satisfactory, but the MI suggested redundant items between IP1 and IP2, and therefore IP2 was deleted. Item IP6 was also correlated with another item and was, therefore, deleted. The model was re-estimated with the remaining five items. CFA resulted in a good fitting model of $\chi^2(2) = 0.24, p = 0.88; \text{GFI} = 1.00; \text{CFI} = 1.00, \text{TLI} = 1.00$ and $\text{RMSEA} = 0.00$. The chi-square statistics were insignificant and other fit indices indicate a recommended level of indices, thus suggesting a good-fitting measurement model. Table 3 shows the finally-retained items with their corresponding standardised loadings, and the reliability of the construct.
TABLE 2: FACTOR LOADINGS AND SCALE RELIABILITY FOR THE TECHNOLOGY PERFORMANCE (TP) SCALE

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Std. Load</th>
<th>Std. error</th>
<th>C.R</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP1: Reduction in the lead time</td>
<td>.75</td>
<td>.03</td>
<td>5.0</td>
</tr>
<tr>
<td>TP2: Increase in quality</td>
<td>.65</td>
<td>.03</td>
<td>0</td>
</tr>
<tr>
<td>TP3: Reduction in cost</td>
<td>.68</td>
<td>.03</td>
<td>6.5</td>
</tr>
<tr>
<td>TP4: Increase in efficiency and productivity</td>
<td>.56</td>
<td>.04</td>
<td>7</td>
</tr>
</tbody>
</table>

Cronbach’s alpha : .75
Composite reliability : .79
Variance extracted : .69

TABLE 3: FACTOR LOADINGS AND SCALE RELIABILITY FOR THE IMPLEMENTATION PERFORMANCE (IP) SCALE

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Std. Load</th>
<th>Std. error</th>
<th>C.R</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP1: Time taken to fully implement the technology</td>
<td>.43</td>
<td>.04</td>
<td>7.86</td>
</tr>
<tr>
<td>IP3: The amount of downtime caused by the technology</td>
<td>.78</td>
<td>.04</td>
<td>3.70</td>
</tr>
<tr>
<td>IP4: The time taken to tackle any technical problem during the implementation process</td>
<td>.66</td>
<td>.03</td>
<td>5.84</td>
</tr>
<tr>
<td>IP5: The capability of the technology in fulfilling your implementation objective</td>
<td>.54</td>
<td>.04</td>
<td>7.22</td>
</tr>
</tbody>
</table>

Cronbach’s alpha : .70
Composite reliability : .72
Variance extracted : .64

RESULTS

Respondent Profile

As shown in Table 4, the respondents represented small (42.2%), medium (34.0%) and large (23.8%) manufacturing companies, being representative of the population of firms contained in Federation of Malaysian Manufacturers (FMM) directory. With respect to the industry sector, vehicle assembly and parts accounted for just over one-quarter (28.6%) of the sample. Other major sectors represented include electrical and electronic products (19.0%), food and beverages (18.4%), and metal working products (15.6%). Paper and paper products (8.2%) and rubber and plastic products (7.5%) were also significant sectors represented in the sample. Table 4 also shows the number of years that the companies had been in operation in Malaysia, from which it can be seen that 60% had been operating for less than 10 years. Another 28% had
been in operation between 10 and 15 years with the remaining (12.2%) having been established for over 15 years.

### TABLE 4: DEMOGRAPHIC DISTRIBUTION OF RESPONDENTS

<table>
<thead>
<tr>
<th>Firm Size</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;100</td>
<td>62</td>
<td>42.2</td>
</tr>
<tr>
<td>100-300</td>
<td>50</td>
<td>34.0</td>
</tr>
<tr>
<td>&gt;300</td>
<td>35</td>
<td>23.8</td>
</tr>
<tr>
<td>Total</td>
<td>147</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and beverages</td>
<td>27</td>
<td>18.4</td>
</tr>
<tr>
<td>Paper and paper products</td>
<td>12</td>
<td>8.2</td>
</tr>
<tr>
<td>Rubber and plastic products</td>
<td>11</td>
<td>7.5</td>
</tr>
<tr>
<td>Metal working products</td>
<td>23</td>
<td>15.6</td>
</tr>
<tr>
<td>Electrical and electronic products</td>
<td>28</td>
<td>19</td>
</tr>
<tr>
<td>Vehicle assembly and parts</td>
<td>42</td>
<td>28.6</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>2.7</td>
</tr>
<tr>
<td>Total</td>
<td>147</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years in Operation</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 years</td>
<td>41</td>
<td>27.9</td>
</tr>
<tr>
<td>5 to 10 Years</td>
<td>47</td>
<td>32.0</td>
</tr>
<tr>
<td>10 to 15 years</td>
<td>41</td>
<td>27.9</td>
</tr>
<tr>
<td>&gt;15 years</td>
<td>18</td>
<td>12.2</td>
</tr>
<tr>
<td>Total</td>
<td>147</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 5 indicates the types of AMT adopted by the companies in the sample, the distribution indicating that almost 40% had acquired special purpose automated equipment. One in five companies had invested in robotics and 17.7% of the firms had invested in CNC machines. The findings show that only 8.2% of the firms had adopted integrated manufacturing systems. However, it is expected that the large number of firms with special purpose automated technology would have significant integration.
TABLE 5: DISTRIBUTION OF RESPONDENTS BY TECHNOLOGY ACQUIRED

<table>
<thead>
<tr>
<th>Technology Acquired</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNC</td>
<td>26</td>
<td>17.7</td>
</tr>
<tr>
<td>Robotic</td>
<td>30</td>
<td>20.4</td>
</tr>
<tr>
<td>Injection moulding machine</td>
<td>7</td>
<td>4.8</td>
</tr>
<tr>
<td>Special purpose automation technology</td>
<td>57</td>
<td>38.8</td>
</tr>
<tr>
<td>Flexible manufacturing system</td>
<td>15</td>
<td>10.2</td>
</tr>
<tr>
<td>Integrated manufacturing system</td>
<td>12</td>
<td>8.2</td>
</tr>
<tr>
<td>Total</td>
<td>147</td>
<td>100</td>
</tr>
</tbody>
</table>

Variation in BSR

Table 6 shows the mean distribution of each element of buyer-supplier relationships measured in this study. Communication appears to be the most essential aspect (mean value = 3.33), whilst information sharing appears to be the lowest aspect, in comparison to the other elements of the buyer-supplier relationships measured in this study.

TABLE 6: DESCRIPTIVE STATISTICS ON BUYER-SUPPLIER RELATIONSHIPS SCALE

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust and Business understanding</td>
<td>147</td>
<td>1.33</td>
<td>4.67</td>
<td>2.894</td>
<td>.65285</td>
</tr>
<tr>
<td>Committed involvement</td>
<td>147</td>
<td>2.00</td>
<td>4.58</td>
<td>2.983</td>
<td>.56586</td>
</tr>
<tr>
<td>Communication</td>
<td>147</td>
<td>1.25</td>
<td>5.00</td>
<td>3.345</td>
<td>.93144</td>
</tr>
<tr>
<td>Information Sharing</td>
<td>147</td>
<td>1.50</td>
<td>4.25</td>
<td>2.739</td>
<td>.64298</td>
</tr>
<tr>
<td>Knowledge acquired</td>
<td>147</td>
<td>1.75</td>
<td>4.50</td>
<td>3.005</td>
<td>.53433</td>
</tr>
<tr>
<td>Buyer-supplier relationships</td>
<td>147</td>
<td>1.83</td>
<td>4.28</td>
<td>2.993</td>
<td>.47947</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>147</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Variation in Performance Level

Table 7 shows the responses on both the technology performance (TP) and implementation performance (IP) scales in the present research, indicating variation for TP from a minimum of 2.25 to a maximum of 4.75, with a scale mean value of
3.67 above the scale mid-point of 3.00. On the other hand, the response for IP ranged from a minimum of 2.5 to a maximum of 4.50 with the mean value of 3.43 slightly higher than the scale mid-point of 3.00.

**TABLE 7: DESCRIPTIVE STATISTICS OF THE PERFORMANCE SCALE**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology performance</td>
<td>147</td>
<td>2.25</td>
<td>4.75</td>
<td>3.6701</td>
<td>.42703</td>
</tr>
<tr>
<td>Implementation performance</td>
<td>147</td>
<td>2.50</td>
<td>4.50</td>
<td>3.4252</td>
<td>.43736</td>
</tr>
</tbody>
</table>

Analysis of the frequency distributions indicates 87% of the respondents claiming an above average level of achievement in terms of *technology performance*, whereas, only 69% of respondents experienced an above average level of satisfaction in terms of *implementation performance* of the specified technology. The overall result shows that the majority of respondents indicate a higher level of achievement in terms of both aspects of the performance measure.

**Testing Hypotheses: Structural Model**

The full information hypothesised model includes BSR, TP and IP. The interrelationships between these variables were tested simultaneously to test the two major hypotheses in this study. Figure 2 indicates the path diagram of the hypothesised model and its standardised coefficient. SEM suggests that the hypothesised model was a satisfactory fit to the sample data with $\chi^2 (63) = 111.27, p = 0.00; \text{GFI} = 0.90; \text{CFI} = 0.90, \text{TLI} = 0.87$ and RMSEA = 0.07. The chi-square statistics were significant but other fit indices indicate a recommended level of indices, thus suggesting a well-fitting BSR measurement model. Since the interest at this point is the path between latent variables, there is no empirical and theoretical justification to modify or re-specify any of the existing relationships in the hypothesised model.

To summarise the findings from the hypothesised model in Figure 2, BSR has a significant positive (p=.00) direct effect with TP (standardised coefficient = .34) and it explains 12% of the variance in TP. BSR also has a significant positive (p=.00) direct effect with IP (standardised coefficient = 0.56) and it explains 31% of the variance in IP.
FIGURE 2: THE FULL HYPOTHESESIED MODEL AND ITS STANDARDISED COEFFICIENT

DISCUSSION AND CONCLUSIONS

The survey results indicate that most of BSR dimensions are inter-related, and are consistent with findings of prior research (Goffin et al., 2006; Swink and Nair, 2006). The results demonstrate that communication appears to be the most essential aspect in buyer-supplier relationships. Although the survey respondents indicate a high degree of communication in their BSRs, they nonetheless recorded a low degree of information sharing, in comparison to the other elements of the BSR measured in this study. The insignificant value of correlation analysis between communication and information sharing suggests that frequent communication between buyer and supplier in the technology acquisition and implementation does not necessarily mean true and complete information is shared. Humphreys et al. (2006) stressed that timely and accurate information sharing is crucial in buyer-supplier relations and that this aspect can be made more achievable with the use of information technology. Yet, the authors recognised that both buyer and supplier found it difficult to adapt to the openness implicit in the notion of information sharing. Both parties engaging in the transaction were unwilling to disclose information that could be used by another party, due to constraints on their authority, or fear of opportunistic behaviour by the other party.
This implies that although communication is enhanced through the use of information technology, there is no guarantee that complete and honest information is shared.

This situation could be even more critical in the process of acquisition and implementation of AMT. On the supplier side, there might be a reluctance to share honest information about the technology in the interests of selling the product to the customer. For example, the supplier may exaggerate information by portraying complex technology as easy to implement, or may withhold information about necessary upgrading costs. The supplier might also be unwilling to disclose information that could expose the weakness of the technology being supplied. However, trust and business understanding are highly correlated with information sharing, suggesting that when trust is established or when high business understanding is developed with regard to the technology being acquired and implemented, information is more likely to be shared. Humphreys et al. (2006) noted that information can be exchanged on a regular basis in an environment of trust. It could also mean that when information is shared, trust and business understanding are more likely to be developed in the relationships.

When investigating the links between buyer-supplier relationships and performance, it emerged that of 147 respondents, 87% claimed that they achieved considerable improvements in terms of lead-time, quality, cost, and efficiency and productivity, after the adoption of the technology. This is consistent with the findings of many previous research studies that indicate the adoption of advanced manufacturing technology to significantly improve many aspects of performance (Cook and Cook, 1994; Small, 1998; Swamidass and Kotha, 1999; Teng and Seetharaman, 2003). However, satisfaction in implementation performance is slightly lower, accounted for only 67% of respondents’ perceptions. This outcome may be a sign that in technology adoption, many firms are still struggling with the implementation problems, consistent with previous research findings highlighting that implementation problems remain the important issues in any technology adoption (Gupta et al., 1997; Hottenstein et al., 1999; Sambasivarao and Deshmukh, 1995).

Although responding firms indicate higher achievement in terms of technology performance in comparison to the implementation performance, results indicates BSR relates more towards implementation performance compared to the technology performance. There are two possible explanations for such outcome. First, in comparison to implementation performance, developing close BSR may not be as critical or closely linked to the achievement of technology performance since there could be other significant factors that affect technology performance. Second, the time factor might have an impact on how companies perceived the performance effect. For example, respondents referred to their relationships with the supplier around the time the technology being acquired and implemented. However, when it comes to the performance of the technology, they might be referring this in the present time, which could be better or poorer over time.
Two hypotheses were tested in the preceding analysis. It was proposed that BSR is significantly related to technology performance (H1) and implementation performance (H2). The finding indicates support for both H1 and H2. It was found that firms developing strong relationships with suppliers are more likely to achieve a higher level of performance in acquiring and implementing AMT. Close BSR can be seen as capable of further integrating the resources and activities throughout the AMT acquisition and implementation process. For instance, through trusting and early collaboration with the technology supplier, firms will be able to make the right technology selection and avoid misspecification and expensive mistakes during the early stage of technology acquisition.

CONTRIBUTION AND LIMITATIONS

The findings of the present study that the technology supplier can enhance the success of technology acquisition and implementation, denotes that buyer-supplier relationships represent some of the most important attributes for AMT acquisition. In practice, developing and maintaining strong BSR requires careful attention by managers. The findings suggest that firms developing stronger relationships with the technology supplier are more likely to experience higher achievement in terms of implementation performance requires the key decision-maker, namely the technology champion, to be highly knowledgeable about the AMT being adopted. Therefore, key managers must make sure that close collaboration with the technology supplier is developed throughout the acquisition and implementation process. The principal proposition here is that firms should ensure that their supplier selection process takes into account the ability to develop a close relationship with the chosen supplier, and not just choose the cheapest option. Strong business trust and understanding should be built between both parties, the commitment and involvement of the supplier should be fully utilised, communication and information sharing should effectively take place, and finally, the key implementation team should ensure that the maximum level of knowledge is acquired from the technology supplier throughout the technology implementation process. Managers should constantly be aware that the ultimate objective from this is to avoid unnecessary and expensive mistakes, which detract from the achievement of technology and implementation performance of the acquired technology.

Although this research has generated new understanding and appears to be useful to practising managers, limitations of the study must be considered. The research only assesses the strength of BSR from the AMT acquirer perspective. In assessing BSR in AMT implementation, as AMT is normally a major capital investment, it could be the only investment made by the buyer within a two-year period. However, the supplier may have supplied several technologies to several other different firms during the same period. Therefore, the measurement of relationship strength is further confounded by the fact that many suppliers frequently supply their customers with different types of technology, and therefore it will be less easy for them to recall their experiences with one particular customer.
Finally, the data used for the research are from Malaysian companies, and it could be assumed that findings may be different in other countries, where the technology being acquired is not imported but sourced locally. The differences in national culture which could lead to the differences in work culture would also be a potential source of difference in the way that buying firms develop relationships with their technology suppliers. Due to this limitation, the results of the present study should be carefully interpreted, since the sample was restricted to Malaysia. Therefore, future research could be conducted in other countries and the results could then be compared with the results of the present study.

Note 1. Both rotational approaches (orthogonal and oblique factors solution) were conducted. However, the orthogonal approach, using the Varimax technique was used because it gives the clearest and easiest pattern to interpret (Thurstone, 1947)

REFERENCES


THE ORGANISATION'S UNDERWORLD: UNOFFICIAL WORK SYSTEMS AS THE REAL PERFORMANCE DRIVERS.

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ABSTRACT

This paper looks at the world of organisational work and, in particular, the relationship between the official work system and the unofficial work system. The unofficial work system, termed the UWS or “underworld”, is quite different to the unofficial or informal social or cultural systems that are the usual subjects of academic research into organisation behaviour.

In terms of work, on the one level there is the structured, officially enforced, conventionally accepted and sanctioned view of how the organization should work and, on another level, the complex network of working relations linking people to each other independently of the structural relationships officially designated, which is how it actually does work – the UWS. These two levels merge and mesh together to form the actual work system: they both occupy the same time and space framework. In operational terms people get work done by using the two levels or systems often without being conscious of being in one or the other. It is argued that the UWS is the real performance driver in organisations whatever they do and wherever in the world they are located and that it must be mapped and understood by managers to get the most value from its operation.

INTRODUCTION

I completed my PhD at Bath University and it involved a comparative study of organisational analysis in an Australian Building Society and in an English Building Society (Smith 1982).

In essence it was a study into the relationship between the official, manifest work system within these two organisations and the unofficial, emergent or underworld work system that meshes with, and interacts with, the official work system.

It was unfortunate that, at the time I completed the degree, the personal nature of the information generated meant that the English Building Society management placed an embargo on access to the dissertation as well as on any publications based on its contents. By the time the embargo terminated five years later I was working outside academia as an international management consultant and not concerned with the “publish or perish” syndrome which so affects participants in that milieu. Having now returned to the university scene I have been re-introduced to theory and given the opportunity to revisit territory previously explored. While I often mention the
existence and importance of what I often call the underworld work system to students in my International Management classes, this is the first time I have argued for its recognition in a more formal way since completing my dissertation. My main prompt for writing this paper was because I feel that the existence of the underworld work system has been overlooked because of the equating of “unofficial/informal systems” with the social, friendship and cultural systems associated with organisations. While these systems play roles in organisational life – some negative and some positive as discussed in the following section - in my view the underworld work system can be a positive force and the real performance driver in organisations.

What follows in this paper is a further discussion of these systems and, in particular, a similar concept promulgated by consultant Steve Simpson (2005) but which I argue is not the same as my underworld. Following this is more detail on the role and usefulness of my concept, some pointers into how this system can be mapped despite the difficulties presented and a brief summary of the conclusions from my dissertation. Despite the passage of many years since completing this research I have found the underworld work systems concept of great value in my subsequent working life as an international management consultant and now upon my return to university.

SYSTEMS IN ORGANISATIONS

The idea of the organisation being a socio-technical system (Trist and Bamforth, 1951, Emery and Trist, 1965) is now generally recognised and accepted by academics and practitioners alike. This somewhat simplistic notion is made much more complex when we consider the number of subsystems or groupings involved – work system, structural system, career system, power system, friendship system and cultural system, for example.

There has been considerable research carried out on each of these sub systems and this research forms the foundation of much of the academic writing in the field generally designated as human resource management and organisational and management behaviour. For example, how to develop work systems to produce high performance and high productivity has been a major research area since the early 1990’s (Den Hartog and Verburg, 2004, Godard, 2001, Appelbaum et al, 2000, Becker and Huselid, 1998, Arthur, 1994).

The other subsystems noted above are the subject of varied research and reporting treatment in different texts and articles. However a consistent reference to systems appearing in the literature is to the distinction between the official or formal system and the so-called social or informal system which evolves over time between people who form friendship or other networks independent of the work systems in which they are involved. An example is the informal network termed “the grapevine” when considering organisational communication (Wood et al, 1998, Krackhardt and Hanson, 1993, Noon and Delbridge, 1991, Davis and O’Connor, 1977, Warham, 1977).

McShane and Travaglione (2004, 264) encapsulate the view of many academic writers when they define informal groups as “two or more people who interact primarily to meet their personal (rather than organisational) needs”. These groups, they claim, form out of convenience, such as sharing a car pool, the need for affiliation, formation of a power clique or to share expertise and passion for a particular activity or interest. There is an implication here that such groups are generally a positive force in the organisation.
In his book discussing organisational behaviour, Chris Argyris (1960) considers the impact of the formal organisation on the individual. He contends that employees frustration and conflict with the formal organization, because of its need to maintain order and control, leads to them to create informal activities. These activities/behaviours are seen by Argyris to be largely socially and psychologically oriented – for instance, daydreaming, aggression, restricting quotas, making errors and slowing down. Thus, in contrast to the convenience, affiliation view noted above, Argyris takes a negative view of the informal system. As I have noted previously and will emphasise again later, the underworld as I see it does not resemble any of these informal groupings but, when understood and harnessed by management, has a positive impact on work and productivity. Another example of an informal system, that involves the development of organisational culture, which has become popular in recent times, is the unwritten ground rules (UGR) concept developed by consultant Steve Simpson (2005). I discuss this concept in the next section of this paper.

While I accept that the two-system approaches noted earlier incorporating the official/formal and unofficial/informal dichotomy make sense, and have some use in understanding behavior in organisations, I propose a different approach which I suggest is much more useful to understanding the way the organisation actually works. This understanding is crucial to any attempts to improve performance and arguably of more value to this end than the informal systems described. My two systems are the official or structured work system and the unofficial or unstructured work system – which I have termed the “underworld” or UWS (Underworld Work System).

As an example of how I see the UWS as different to one of these informal systems I argue in the next section of this paper that the UGR concept noted above is markedly different from the underworld I have conceptualised.

THE UNDERWORLD WORK SYSTEM (UWS) VERSUS UNWRITTEN GROUND RULES (UGR)

The UGR concept (Simpson, 2005, Simpson and Cacioppe, 2001) is a very useful addition to the debate on the organisational cultural system and how a given culture can be managed to be more effective in producing better performance. A key factor in such improvement is to identify the underlying and unwritten corporate culture that exists in most organisations. Improvement is then achieved, it is claimed, by giving the UGR’s (which describe the underlying culture) a character that reflects the culture desired by management. Thus, the UGR’s should become synonymous with the written ground rules (dare I call them WGR’s?) to result in a productive culture. Training for cultural change then involves management generating the WGR’s that are required and convincing (or “facilitating”) employees to give up their UGR’s and accept and act on the WGR’s. In other words, once you have identified the UGR’s in your organisation, it is important to harness the good ones and change the bad ones to meet the requirements of the culture desired. Once the UGR’s match the WGR’s then the claim is that performance improves and customers benefit from the improvements. However, in my view the UGR concept is somewhat akin to the informal or social system that is noted in many texts and articles as the foil to the formal system and to which I referred in the previous section.
Thus UGR’s are informally generated and become embedded in the organisation as the employee’s group culture as opposed to that required (but not necessarily articulated) by management. Culture is to the group like personality is to the individual and the UGR concept is essentially a group phenomenon.

While accepting the usefulness of the UGR concept as it relates to the employee group culture, I have a view that relates to organisational work rather than culture and a view that relies on the idea that organisations have two basic systems operating in relation to getting work done. One is the structured, official work system and the other is the unstructured, unofficial work system, or UWS as I have termed it. The UWS is founded essentially in the individual and how each individual gets the job done on his/her own and with the help of others. This network of “helpers” forms the UWS. It is not a friendship system and it is not a cultural system even though it has some interaction with these systems. It is a work performance system and is the performance driver which has the greatest impact on the overall success, or otherwise, of an organisation. Thus the UWS is more important to individual, group and organisational performance than the contribution of culture, friendship, shared interests and similar informal systems. If the UWS and the official work system are meshing successfully then the result can be successful even when the informal social systems are dysfunctional. On the other hand, working systems success may well lead to more functional social systems.

THE UNDERWORLD WORK SYSTEM

It is fairly easy to accept the tangible, manifest organisation as having an identifiable life of its own, the formal official work organisation as it were - it is more difficult to come to grips with the underlying or unofficial side of an organisation’s work life, the UWS. My concept of this underworld is that it is a part of the working system of the organisation and is not, as noted above, the so-called informal or social organisation often described in management text books.

On the one level we have the structured, officially enforced, conventionally accepted and sanctioned view of how the organisation should work and, on another level, the complex network of working relations linking people to each other independently of the structural relationships officially designated, which is how it actually does work. These two levels merge and mesh together to form the actual work system: they both occupy the same time and space framework. In operational terms people get work done by using the two levels or systems often without being conscious of being in one or the other.

The official system is represented mainly by the organisation chart, policy and procedure manuals and job descriptions. The UWS develops as a result of how people bring these items to life. Watson (2003), in broad agreement with McShane and Travaglione (2004) and Argyris (1960), suggests that unofficial relationships, coalitions, cliques, pecking orders and communication short cuts develop because of the need for people to express their humanity and pursue personal priorities. While this reaction could well be part of the answer, my view is that the UWS develops, in the main, simply because it is impossible for charts, manuals and descriptions to be followed to the letter; the UWS is an inevitable development as people strive to get their work done.

This can involve communicating outside official channels, amending/manipulating the official policies and procedures and massaging the job description to suit the
realities of organisational life and the uncertainties, ambiguities, conflicts, territorial imperatives and power plays involved. Thus if a person wants to perform to an acceptable level, and most do, becoming part of the UWS is a survival imperative rather than just a means of expressing that person’s humanity or personal priorities. Under the official organisation structure chart there is a complex communications network that is the actual working relationship system. Unlike the official charts, policies and procedures that are relatively static, this UWS is dynamic and very difficult to identify.

The UWS is not a system with criminal or anti-authority intent but its nature is such that its activities and sentiments are not quite as seemly as those officially sanctioned by the authority sources in the organisation. What exists is akin to an ‘as if’ world where a type of collusion occurs to ensure that the officially sanctioned system, though not often used, or when used as a guide, is not threatened by what actually happens (Smith, 1982).

To get things done people must use the UWS because the official system (represented by job descriptions, policies, procedures and the like) cannot prescribe every action that needs to be taken to get things done. An examination of the official system will not result in an understanding of how an organisation works; the UWS must also be delved into in order to establish what is really happening.

A clear manifestation of the importance of the UWS to operations occurs when a worker’s Union tells its members to "work to rule" i.e. follow the official work system to the letter. Activity slows, work is not done or is undone and clients become confused and despairing. Another illustration is that which occurs when an employee assigned a particular job description is replaced. A new employee in that job will do it differently despite having the same job description – the description tells the job holder what to do, not how to do it. And would there be anyone in any organisation anywhere who has not many times circumvented official reporting lines in order to achieve work objectives? In regard to jobs, Elliott Jaques (1956) coined the term “discretionary time” which equates closely to what I call the UWS. He says that work is divided into prescribed (official) and discretionary (unofficial) content. Prescribed work is specified in the job description and leaves nothing to the judgement of the job holder. But, he says, all jobs have some content, however small, which requires the job holder to use their own discretion in deciding how to get the results required when the prescribed content is not helping.

Managers need to be aware of the two systems and their effects. At the extremes a strong, authoritarian official work system can stifle initiative and creativity and a strong, insubordinate UWS can result in chaos and undermine and destroy the credibility and functional use of the official work system. The answer for management is to strive for an optimum point on the continuum at which to operate. To achieve this, the UWS must first be mapped.

By its very nature the UWS is not readily recognised, understood or accepted even by participants themselves. It takes a great deal of observation and discussion with people doing jobs to find out how things are really done, so mapping the UWS is not as easy as mapping the official work system.

However, if a manager wants to know how things really get done, by whom and when and where, he or she must obtain knowledge of the UWS in his or her realm of responsibility – and elsewhere if possible. Managers must do their best to come to terms with, and accept, the UWS and use it to their advantage. It is normal that
tension will exist between the two work systems but it needs to be handled carefully and sensitively so it is constructive and not destructive.
For every organisation the official work system is only the tip of the "organisational work iceberg" and, when things go wrong it is usually because the bulk of the "iceberg" (the UWS) has exerted its influence in a negative manner. People usually do not deliberately set out to buck the official work system, it is simply a fact of life that it must be bucked to some extent in order to lubricate the officially designated work methods.
So, the message for managers is that every effort must be made to have the official work system as user friendly and as close to the realities of what is actually needed for efficient and effective work performance as possible. However, they must allow for the fact that, however sound the official work system is, users will amend and modify it to some extent in order to cope with the exigencies of everyday work.
Of course, to be able to manage the two systems, one must be able to map them and that is discussed in the following section.

MAPPING/IDENTIFYING THE UNDERWORLD WORK SYSTEM

A map is a piece of systematic information about a given complex situation and many different maps can be made of the same field of interest (Bridger, 1980). Bridger noted that many maps could be made of organisations, for example, the cultural map, the power map, the career map and the structural map.
In regard to this paper and its focus, I am concerned with two maps – the one which provides a picture of the official view of the work organisation and the one which provides a picture of the UWS.
Drawing a map of any context involves the gathering of information and the analysis of that information. In regard to the dual system I am considering, the essence of information analysis lies in its interpretation. However, even with the best of interpretive methods it must be recognized that complete knowledge and understanding of an organisation is unattainable because complete analysis and the construction of reality maps is impossible - if only because of the dynamic nature of organisations.
In a situation we observe and study we never see what is there in all its complexity - it is a construction and an interpretation. This view is reinforced by concepts/ideas espoused by the following writers.
George Homans (1951) - the full analysis of a system of interpersonal relationships carried out in ordinary literary language is apt to become unmanageable.
Arthur Koestler (1964) - in coming to terms with perceiving organisational life, unscrambling the visual and acoustic omelette can be a near impossible task.
Isidor Chein (1972) - the major problem in analysis is that we are mapping other people’s maps and this makes agreement on reality difficult, if not impossible, to reach.
John Gall (1975) - organisations have a life of their own and this life is beyond the capacity of any one individual to know.
Geoffrey MacKechnie (1997) - complex systems operate to patterns that are multi causal and non linear and these pattern are often self organised rather than imposed.
Despite the difficulties, attempts must be made to get as close to reality as possible, particularly in regard to the UWS because of its unstructured nature as compared to the official work system. These two systems exist in constant inter-penetration and interaction, each being part of the other yet in a sense existing separately. For
managers it is not a question of choosing between them but of reconciling them so that the result is functional rather than dysfunctional.

A great deal of information on the official work system is available for mapping to an internal or external observer provided with adequate powers to consult official records and make supplementary investigations using orthodox document search procedures. Information about the UWS which develops as an interpretation of, and adjustment to, the official work system is not so easily acquired.

In my PhD dissertation my main approach to attempting mapping of the UWS was to interview people about their job with questions such as: What do you do? How do you do what you do? Where do you source information to enable you to do your job? Who do you contact in order to help you do your job? How do you solve non-routine problems? Who contacts you in order for you to help them do their job? In other words I used an interactional method in order to make the invisible work visible as discussed by Cross, Borgatti and Parker (2002). Observing people at work also generated much useful information about the UWS.

From an analysis of this information it was possible to determine the patterns, general relationships and unofficial task procedures that underpinned the official work system and to realize that the official work system was appearance and the UWS was much closer to reality. Thus I realised, as Whitehead (1942) noted, appearance is an incredibly simplified version of reality. While not developing a structural UWS map I did produce results which I could compare with the official work systems to obtain an indication of the strength of each system and whether they were in balance or whether one was more influential than the other.

My methodology at the time (1980) was somewhat basic and was certainly time consuming even though the Building Societies I studied were composed of only around 200 employees each. Although I had touched on the social network approach of Tichy, Tushman and Fombrun (1979) during my research, I had associated their sociometric analysis methods with an organisation’s social systems and did not think of their application to my interest – the UWS.

I have used the word “network” earlier in this paper when referring to the underworld connections and this could be an indication that socio-metric analysis may have been a useful tool to investigate these work methods connections. Tichy, Tushman and Fombrun (1979) viewed an organisation in society as a system of people, groups and objects joined in a variety of relationships which lend themselves to the social network approach.

This approach, they claimed, by focusing on the linkages/relationships involved, would show the intersection of the dynamic and static aspects of an organisation. In their article, these three researchers noted that: “organisations can be seen as made up of both prescribed and emergent groupings each with its own structural characteristics” (Tichy, Tushman and Fombrun, 1979, 510).

These groupings seem to me to be synonymous with my official and unofficial (underworld) structures ie official is prescribed and unofficial is emergent. On re-reading the article by these researchers it is obvious that I did not grasp the significance of the social network concepts they called “transactional content” and “structural characteristics”.

When two actors are linked these researchers distinguished four types of transaction – 1) exchange of affect (liking, friendship), 2) exchange of influence and power, 3) exchange of information, and 4) exchange of goods and services. The structure resulting from these transactions maps the unofficial relationships between all the actors involved.
While not obvious when I was working on my dissertation research it now seems to me that if one mapped the exchange of information, goods and services between organisation members then the network of linkages that would be produced would be the “socio-gram” representing the UWS structure. However, Tichy, Tushman and Fombrun (1979) do point out that because socio-metric data is relatively easy to collect, investigators can tend to gather an overabundance of data. This means that analysis can be a weighty task, certainly by hand and even using computer programmes.

THE BUILDING SOCIETY MAPPING RESULTS

Powell (1990) suggests that the value of viewing organisation job positions as constituting a network is that we can see the overall system structure from the point of view of each position holder. A sociometric approach collects information that enables a view of the relationships between positions that are occupied by individuals. It seems to me that while this approach could be used to identify elements of the UWS, as I have suggested above, the network approach which looks at how each individual in the network views his or her place in the network may be a more useful way of mapping that network. Putting the individual information together to form an overall pattern of the work systems actually in use would appear to me to more useful to management than a “sociogram” of the relationships. Thus my early research method of using interviews to establish the underworld work system network may not have been such a simplistic way of approaching the issue. While I did not end up with a “sociogram” of linkages I was able to determine the gap between the official work system and the UWS and whether the gap created an imbalance that was detrimental to overall efficiency and effectiveness of the organisations’ work flows and outcomes. In coming to an understanding of the patterns of influence, relationships and work related flows which distinguish each work system and to identify shifting boundaries, it was necessary to study the UWS while, at the same time, keeping in mind the relationships dictated by the official work system.

As noted by Keast and Brown (2005, 1) when discussing the network paradigm and network analysis, “-- while conventional evaluation and research approaches are highly instrumental in determining causality and effect they are not able to capture the interactions within and between network members to uncover the topology of relationships”.

My conclusions in regard to the work topology of relationships in each Building Society indicated that these two systems exist in a dialectic of dynamic forces that determined the performance of the organisation in relation to the relative strengths of each force – the manifest official system and the underlying and unofficial UWS.

In the English Building Society it was the official work system which formed the basis for action – either official action initiated by it or underworld reaction to it.

At the Australian Building Society it was the UWS which formed the basis for action – the official system being the reacting system.

This indicated to me that the English Society had a tight and restrictive official system and a loose and non-restrictive UWS while the Australian Society had a loose and non-restrictive official system and a tight and restrictive UWS. These results at the underworld level went against conventional wisdom which suggests the English are reserved and exercise strong self control while Australians are open and frank.
Performance is the result of interaction between these work systems and my research suggested that the English version of tight official system and loose underworld system produced somewhat better performance than that of the Australian Society. My conclusion was that the increased awareness of staff to procedures and practices caused by their excessive use and imposition generates the underworld activity which copes so well with the interference that output improves. That is, what looks like official procedures producing efficiency, is, in reality, the underworld’s reaction to them which promotes a more efficient operation. As Bridger claims (1980) the unofficial work network often operates as a basis to enable people to demonstrate skills they have which management has assumed in their work design that they are too stupid to have! As the enterprise presses for more order, so the underworld activity grows to provide an outlet for people to express their individuality, autonomy and freedom. It is the reaction to order-creating activity which circumvents the restrictions of such activity and leads to improvements in effectiveness and efficiency. This tends to support the view of Watson (2003) presented earlier that such reaction enables people to express their humanity even though I suggested that this was a debatable point

It needs to be recognised that efficient operation may well not be associated with individual or collective job satisfaction or a sound organisational culture. This was illustrated to me by the research finding that while efficiency had increased over the ten year period prior to my intervention into the English Society, job satisfaction had declined. At the Australian Society, both efficiency and job satisfaction were at lower than acceptable levels.

**CONCLUSIONS**

Keast and Brown (2005, 5) offer a framework for studying networks which include three approaches to the task – network as metaphor (a symbolic orientation), network mapping (a graphical orientation) and network analysis (a mathematical orientation).

As will be obvious from preceding material in this paper, my approach has been network as metaphor - data was collected by examining the language (via interviews) informing action with a view to identifying and tracking the shift to a collective orientation from a singular, or individual orientation. It should also be obvious that my use of the term “map” is not synonymous with the graphical orientation noted by Keast and Brown (2005, 5).

Both the graphical and the mathematical orientation require more sophisticated and quantitative methods for data analysis than the metaphorical approach, but in the case of tapping into the underworld of an organisation I suspect that the qualitative approach of the network as metaphor could provide more insights than the quantitative orientations. As a qualitative researcher my role was to seek to provide an explicit rendering of the structure, order and patterns amongst sets of participants and this worked for me when a quantitative approach would not.

The payoff of such in situ interviews, observation and subsequent content analysis and synthesis is that it generates insights, defines dimensions and identifies possible inter-relationships among multi-level activities thus giving much richer information than a quantitative approach (Argyris, 1971).
However, on the other hand the results can be less clear and less dependable than the more focused, narrow band, algorithmic approaches of quantitative research methods. My main justification for use of qualitative methods is similar to Diesings (1972).

While formalists get their kicks with clear orderly models and experimentalists and survey researchers are rewarded by encounters with statistical regularity, the experience I get from participant observation in a social system may be described as a sense of communication with something alive, vivid and fulfilling.

I also have a sneaking sympathy with Winnicott (1974, 167) who states: “….. this is where those who have spent their lives doing psychoanalysis must scream out for sanity against the insane belief in surface phenomena that characterizes computerized investigations of human beings”.

I am convinced that the UWS is the most important performance driver in organisations and that knowledge of its operation can give vital clues to managers, whatever their organisation and wherever they work, who want to improve the fit and balance between it and the official work system. This involves finding the right degree of tightness on the continuum through experimentation. Map the official system and the UWS and tighten or loosen officialdom to enable the UWS to do its work. The process will need to be ongoing.

While I argue that a qualitative approach to mapping the UWS is the most suitable methodology to acquire this knowledge, I am sure that those happier with quantitative methods would be able to produce further insights into the preliminary analysis I describe in this paper. Further research in either mode, particularly in other than Western cultures, would confirm, deny, modify or provide alternative theory to my analysis. For example, is my conclusion that it is a tight and restrictive official work system that stimulates the UWS to respond in innovative ways to create efficient and effective performance correct? Such research would be a valuable addition to what I see as the current rather limited descriptions of what is formal and what is informal in organisations.

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THE CASE FOR KNOWLEDGE, SKILLS, AND ABILITIES-BASED EDUCATION- THE EXPERIENCE OF UNIVERSITI KUALA LUMPUR (UniKL) IN PROMOTING ENGINEERING TECHNOLOGY

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ABSTRACT

As Malaysia move towards becoming a more industrialized society through the creation of more knowledge intensive industries, the demand for highly skilled and competent manpower will also increase. Apart from the need to have more scientist and theoretical engineers for R&D activities, the industry will also require manpower that are knowledgeable and have high practical skills to ensure that the industrial shop floor are operated in the most efficient and productive manner. Engineering technology specialization at tertiary education is one of the options if not a solution to fulfill the industrial needs.

Acknowledging the importance of a highly skilled and practical-oriented engineering workforce particularly in this knowledge age and globalization, Universiti Kuala Lumpur took up the challenge and pioneered Engineering Technology education in the country that emphasis on practical and hands-on skills in various advanced technology and ICT. The curriculum focuses on industrial needs and adopts new approaches to learning whilst nurturing entrepreneurship thinking culture amongst its students. Based on the high employability of its graduates in industry, it is proven that the effort has paid off.

Apart from producing technologist, the Engineering Technology program at UniKL is also gearing graduates to become technopreneurs. Malaysian economy needs to expand at a rapid pace to maintain its high growth rate and long terms competitiveness. Hence, the growing number of small and medium industries is vital. This only can be realized if more and more technopreneurs are being developed. Technopreneurs are entrepreneurs who are running technology-based businesses. They develop new and innovative technology-based products to meet ever changing demand and taste of the modern and sophisticated consumers. Due to the technological competence requirement, it is easier to develop technopreneurs from those who have technical skills and knowledge with education background such as engineering technology.
INTRODUCTION

The history of engineering technology started in the USA in the 1950s; catalyzed by the Russian. The launch of the first Sputnik on October 6, 1957 indirectly influence the creation of a four-year engineering technology curriculum. The Americans belief that they were lagging behind the Russians in science and engineering. More mathematics and science were pumped into the engineering curricula. The Newton’s law applied; the action and reaction theorem; as a result the curriculum became less applied, less hands-on with more lectures for the engineering courses. These graduates entered the work force with less operational skills, which cause problems to small and medium scale industries [1]. These types of industries are very concern on their spending in the training of these graduates; however for the big size industries, it was relatively easy to bring these new engineers up to speed in the lab in a year or so.

The four-year engineering technology degree curriculum was then introduced to prepare graduates for engineering work in industry with an applied hands-on focus. The academia called these graduates as “technologists”; however the industries are used with the title “engineers”. They could not differentiate between the graduates of these four-year engineering technology programs and the graduates of the pre-Sputnik engineering programs. The new theoretical engineering curriculum was a fine preparation for graduate school. However, the missing practical background or application oriented curriculum delayed their ability to contribute to operational skills required by the industry.

In Malaysia, the introduction of Engineering Technology programs started in the early 1990s with the creation of Kolej Kemahiran Tinggi MARA (KKTM) such as German Malaysian Institute (1992), Malaysia France Institute (1994) and British Malaysian Institute (1996) offering hands-on practical-oriented diploma programs; offering an alternative path in higher education, especially to those from technical and vocational education background. Prior to 1990’s, the technical vocational based education in the country only leads to the award of a certificate. The Ministry of Human Resource follow suit by establishing several Advance Technical Institutes (ADTEC) and also the Japan Malaysian Technical Institute (JMTI). There is also the Terengganu Advance Technical Institute (now known as TATI University College) that was established in 1993 by the Terengganu State Government. Most of the programs offered by these institutions are called Diploma in Technology, which aims to produce highly-skilled workers as well as mid-managers to cater for the industrialization needs of Malaysia. In the early 2000s the creation of several University Colleges (UC) by the government was meant to produce “technologist”, however these UCs have reverted to the conventional Bachelor of Engineering programs due to the non-recognition of technology programs by the Board of Engineers.

The Engineering Technology Curriculum in Comparison with Engineering Curriculum

The Engineering Technology Council of the American Society for Engineering Education (1992) defines engineering technology as follows:
“Engineering Technology is the profession in which a knowledge of the applied mathematical and natural sciences gained by higher education, experience, and practice is devoted to the application of engineering principles and the implementation of technological advances for the benefit of humanity. Engineering Technology education for the professional focuses primarily on analyzing, applying, implementing and improving existing technologies and is aimed at preparing graduates for the practice of engineering closest to the product improvement, manufacturing, and engineering operational functions.”

The American Board of Engineering and Technology (ABET) defines engineering technology as follows:

“Engineering technology focuses on applying engineering and scientific knowledge combined with technical skills to qualify graduates who support engineering activities. The programmes are typically application oriented, while being somewhat less theoretical and mathematically oriented than engineering. It typically concentrates on the applied design using current engineering practice and technology”

ABET further defines engineering as follows:

“Engineering focuses on using the knowledge of mathematics and natural sciences to develop ways to economically utilize the materials and forces of nature for the benefit of mankind. Engineering involves a wide spectrum of activities extending from the conception, design, development and formulation of new systems and products through the implementation, production and operation of engineering systems”

Even though set of programmes learning outcomes has been develop prior to the curriculum development of engineering technology programmes, there is a vital need to have a standard set of programmes learning outcomes, develop by the stake holders of Engineering Technologists [3] [4]. The set of learning outcomes which is one of the main components of Outcomes-Based Education is yet to be developed for Engineering Technologist in Malaysia. This set of learning outcomes should provide a clear distinction between engineers and engineering technologists, which will then become the basis of the curriculum design for any engineering technology programmes. Table 1 shows the attributes or ability of Engineering and Engineering Technology graduates which can be used as the basis in developing the programmes learning outcomes.

**TABLE 1 : ATTRIBUTES / ABILITY OF ENGINEERING AND ENGINEERING TECHNOLOGY GRADUATES ACCORDING TO WASHINGTON ACCORD AND ABET**

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<td>Apply mathematics, science and engineering science for the design, operation and improvement of systems, processes and machines</td>
<td>An appropriate mastery of the knowledge, techniques, skills, and modern tools of their disciplines</td>
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<td>An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering, and technology</td>
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<td>An ability to identify, analyze, and solve technical problems</td>
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<td>An ability to conduct, analyze, and interpret experiments and apply results to improve processes</td>
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<td>An ability to apply creativity in the design of systems, components, or processes appropriate to programme objectives</td>
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<td>An ability to function effectively in teams</td>
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<td>An ability to communicate effectively</td>
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<td>A recognition of the need for, and an ability to engage in lifelong learning</td>
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<td>An ability to understand professional, ethical and social responsibilities</td>
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<td>Respect for diversity and a knowledge of contemporary professional, societal and global issues</td>
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<td>A commitment to quality, timeless and continuous improvement</td>
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**Engineering Technology at Universiti Kuala Lumpur**

Despite the challenges and issues related to the profession and recognition of “technologist” in Malaysia, Universiti Kuala Lumpur was established by MARA in 2002, with the aims to contribute towards the development and advancement of Malaysia’s human capital in engineering technology field by offering diploma, degree, master and doctorate level program in various engineering technology field. The formation of UniKL is seen as the apex for MARA’s TVET delivery system. It involves the merging of seven (7) technical institutes of MARA as branch campuses of UniKL. All of these branch campuses are specialized in their own technological programmes that has receive technology transfer in the form of programme curricula, equipment and staff training from countries such as Australia, Britain, France, Spain and USA.
One of the challenges for engineering technology is that there is no widely accepted definition. In Malaysia, engineering technology is almost unknown and is not recognized by the Board of Engineers Malaysia and Institute of Engineers Malaysia. Nevertheless, UniKL has decided to pioneer the delivery of Engineering Technology programmes in Malaysia and has qualify its 1st batch of 57 graduates with Bachelor of Engineering Technology in 2005 that has been well received by the industry.

The four-year Bachelor of Engineering Technology programme offered by UniKL aims to produce competent k-workers that would complement the engineers from the scientific and academic route. The concept of ‘learning by doing’ practiced in UniKL is in line with the needs from companies who are putting highest priority looking for ‘hands-on’ engineer [2]. Presently, UniKL has 17 Degree level and 34 Diploma programmes and is planning to introduce another 15 Degree and 3 Diploma programmes in 2007.

The typical structure of UniKL’s Bachelor of Engineering Technology adopts closely the curriculum structure proposed by the Malaysian Engineering Technologist and Engineering Technician (MEET) model [2] as shown in Table 2. The major difference between the MEET model as compared to the Malaysian Engineering Education Model (MEEM) is the method of delivery between theoretical and practical instruction. The categorisation of the curriculum are based on 3 major groups, namely, (1) professional and practical skills, (2) scientific, basic science and math skills, and (3) generic skills (comprising global and strategic, industrial and humanistic skills) [5]. Since Engineering Technology is more “hands-on”, the delivery is more practical based and problem oriented with assessment mainly through coursework and group projects. Table 3 shows comparison between curriculum model for B. Eng. Tech. (Mechanical) proposed by MEET and B. Eng. Tech. in Automotive Maintenance and Management offered by Universiti Kuala Lumpur.
TABLE 2: EDUCATION AND TRAINING CURRICULUM MODEL FOR BACHELOR PROGRAMMES

<table>
<thead>
<tr>
<th>Category</th>
<th>Malaysian Engineering Model Percentage Distribution (130 credits)</th>
<th>MEET Engineering Technology Proposed Percentage Distribution (120 credits)</th>
<th>Typical UniKL Eng. Tech Percentage Distribution (125 credits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Skills</td>
<td>50 – 35 % (65-45)</td>
<td>65 – 75 % (78-90)</td>
<td>63.2 % (79 credits)</td>
</tr>
<tr>
<td>Practical Skills</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Scientific Skills</td>
<td>20 – 35 % (25-45)</td>
<td>15 – 20 % (18-24)</td>
<td>14.4 % (18 credits)</td>
</tr>
<tr>
<td>Basic Science and Math Skills</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global and Strategic Skills</td>
<td>30% (40)</td>
<td>15 – 20 % (18-24)</td>
<td>22.4 % (28 credits)</td>
</tr>
<tr>
<td>Industrial Skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanistic Skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery/Assessment (Theory : Practical)</td>
<td>80 : 20**</td>
<td>50 : 50**</td>
<td>50 : 50**</td>
</tr>
</tbody>
</table>

** Ratio of contact times
Table 3: MEET Calibration for B.Eng.Tech.(Mechanical) compared with B. Eng. Tech. in Automotive Maintenance and Management

<table>
<thead>
<tr>
<th>(MEET) BACHELOR OF ENGINEERING TECHNOLOGY (Mechanical)</th>
<th></th>
<th>BACHELOR OF ENGINEERING TECHNOLOGY IN AUTOMOTIVE MAINTENANCE AND MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills &amp; Competencies</td>
<td>Proposed % Distribution (120 credits total)</td>
<td>Courses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Professional</td>
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<tr>
<td></td>
<td>Proposed % Distribution (121 credits total)</td>
<td>Courses</td>
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<tr>
<td>------------</td>
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</tr>
<tr>
<td></td>
<td>15 – 20% (18 – 24)</td>
<td></td>
</tr>
</tbody>
</table>

AFBE 2008 Conference Papers

- Technology, Auto Safety, Industrial Training, Automotive Body Structure & Repair, Final Project 1, Natural Gas Vehicle, Elective 1, Vehicle Assessment, Final Year Project II, Elective 2
| Generic | 15 – 20% (18 – 24) | **Global & Strategic**: Languages, IT, **Industrial**: Finance and Accounting, Management Communication Skills, Law, **Humanistic**: Civilization, Islamic studies, Morals | Generic | 23.1% (28) |
| Delivery / Assessment (Theory:Practical) | 80 : 20 | Delivery / Assessment (Theory:Practical) | 51 : 49 |
Since 2005, UniKL has been producing hands-on engineers required by industry. In July 2007, UniKL started to offer the Masters in Engineering Technology and the goal is to take graduates a step closer to becoming techno-entrepreneurs. The Masters program are full time study by research and will provide opportunity for the further development of TEVT graduates in technological knowledge, analytical and life-long learning skills and entrepreneurship ability. Research projects will be industry and product development oriented with the view of creating suitable products for commercialization purposes. This is in accordance with the ILO Recommendation 195, where graduates are to be researchers with knowledge, skills and enterprise oriented [6].

The educational pathways shown in Figure 1 provide an alternative to those who want to pursue their study in the Engineering Technology field. Based on the current student population of about 13,000; UniKL has about 30% of its students joining the Diploma programme from Certificate holders whilst about 70% are from SPM holders. For the Degree level programmes, 70% are coming from Diploma holders whilst 30% come from STPM, Foundation and Matriculation.

Under the 9th Malaysia Plan, more TEVT institutions under the Ministry of Human Resources (ILP’s and ADTEC’s), Ministry of Entrepreneurship & Cooperatives Development (GIATMARA, IKM’s and KKTM), Ministry of Youth and Sports (IKBN’s) and Ministry of Higher Education (Community Colleges, Polytechnics) will be built and upgraded to deliver Diploma level courses. UniKL recognizes the need to cater for the lifelong learning of this growing population in TVET graduates, especially at the Diploma level. In comparison to other universities that offer Engineering degrees, UniKL has decided to pioneer the delivery of Engineering Technology degrees. UniKL believes that application-oriented Engineering Technology programmes are more suited to TVET graduates and fulfills the expectation of industry for technical personnel that are knowledgeable with hands-on practice rather than theoretically inclined. At the moment, UniKL is the only university in Malaysia offering Engineering Technology degrees.
FIGURE 1: UNLIKELY FACILITATE EDUCATIONAL PATHWAYS BETWEEN TECHNICAL & VOCATIONAL EDUCATION TO HIGHER EDUCATION
Technopreneur Development – A new dimension and the way forward

Malaysian economy needs to expand at a rapid pace to maintain its high growth rate and long term competitiveness. Hence, the growing number of small and medium industries is vital. This only can be realized if more and more technopreneurs are being developed. Technopreneurs are entrepreneurs who are running technology-based businesses. Apart from business competence, they also have technology competence and are able to grasp with the fast changing technology. They develop new innovative technology-based products to meet ever changing demand and taste of the modern and sophisticated consumers. Due to the high competence requirement on technology, it is easier to develop technopreneurs from those who have skills and knowledge in technology with education background such as engineering technology.

The value of hands-on skills and knowledge gathered from engineering technology education background will give them advantages to embark on technology-based business. But the success is not guaranteed without going through rigorous entrepreneurship training as early as when the students registered at the university. Taking into consideration that one of the success factors in techno-business venture is deep understanding in marketing, entrepreneurship, business management and technology; students at University Kuala Lumpur are required to study academic subjects such as principle of management, business management, accounting, financial management, entrepreneurship and many other elective subjects. They are also encouraged to actively participating in entrepreneurship co-curriculum activities as part of polishing their talent in business skills especially in the crucial areas such as marketing, financial management, product development and customer relation. Such activities including starting-up their own companies in any kind of businesses eventually will give them exposure in real business environment. This social-entrepreneurship activity is the first stage in developing technopreneurship and they are ready to be genuine technopreneurs immediately after graduating. Figure 2 shows the techno-entrepreneurship development model used at UniKL embracing the E-to-E (education to entrepreneurship) concept.
UniKL also develops smart partnership with industry players as part of a program to integrate entrepreneurship program within the university with industry. These synergy linkages will play vital role in engaging young technopreneurs into the mainstream of the industry. Without this strategic linkages and networking there will be difficulties for young technopreneurs to access to technology, market and the total industry supply-chain.

As a conclusion, the conversion for the engineering technology graduates as a result of skill-based education to be technopreneurs will change the landscape of the national economy. There will be more and more technology-based SME’s established to support the development of national economy.

**CONCLUSIONS**

The TVET sector in Malaysia is entrusted with qualifying the needed semi-skilled and highly skilled manpower for the industry. The success of Malaysia’s economic shift from production economy to a knowledge-economy in the era of globalization and rapid technological change will inevitably depend on the capability of its human resources to embrace lifelong learning. The TVET sector has no choice but to develop and upgrade its capabilities in tandem with demands of the new industry to qualify the needed technical k-workers for the country with lifelong learning skills.

The Engineering Technology programmes offered by UniKL has now made it possible for TEVT graduates from certificate level to pursue formal learning process right up to the highest qualification level. The view that TEVT is a “dead-end road” education system is now history.
Combination of engineering technology education background and business skills is the key in producing real global technopreneurs for the years to come.

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ACADEMIC ACHIEVEMENT AND ATTITUDES TOWARD SCHOOL: A COMPARATIVE STUDY OF ADOLESCENT AMERICAN AND ASIAN STUDENTS

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ABSTRACT

International Assessment Tests consistently place Asian students at the top of mathematics and science achievement both at the elementary and secondary levels. While U.S. students appear to be slightly above the international average in elementary school, they perform “near the bottom” at the high school level. The 2006 Program for International Student Assessment (PISA) results ranked U.S. students 25th out of 30 OECD countries in mathematics. This means that American youth are less prepared to enter higher education institutions or the workforce, jeopardizing their future financial success. This is a detriment in today’s interdependent global economy.

This study will explore: 1. Why academic motivation and attitudes toward school plummet among American adolescents when they reach secondary grades, but not among Asian adolescents. 2. The impact of American and Asian culture and beliefs on effort and ability and their effect on academic motivation and attitudes towards school. These issues will be explored using the theoretical framework of Attribution theory. In addition, the literature review will explore research on academic motivation, attitudes, and locus of control to further understand this area of study.

Using Attribution theory, the academic success of Asian students can be traced to the overall emphasis on effort coupled with strong traditional Confucian beliefs, a deep respect for family values, and strong social support for academic pursuits from family and peers. American students, on the other hand, seem to stress the importance of ability for achievement over effort. American culture and customs place strong focus on adolescent autonomy, focusing on socializing with peers and extracurricular activities. Adolescents frequently hold part-time jobs for spending money and place less emphasis on social responsibilities to the family and elders. This may explain why American students as a whole tend to perform at a lower level than students from many Asian countries such as China, Hong Kong, Japan, Korea, and Taiwan.

INTRODUCTION

Motivating students to learn is one of the greatest challenges for educators across the world. Stakeholders are asking how schools can enhance students’ motivation to learn to ensure that all students, regardless of their social, economic, and intellectual status, learn and become useful and productive members of society. In the United States, finding the answer to this questions is perhaps more critical than ever. Despite the No Child Left Behind Act of 2001, a U.S. landmark in education
reform designed to improve student achievement and change the culture of U.S. schools, children are still struggling. This is even more prevalent when comparing American students’ test scores with those of school children world-wide.

Results from two international student assessment tests comparing students’ math and science scores show mixed results for U.S. students. The International Mathematics and Science Study (TIMSS), given in 2003 to students in 46 countries, compares scores in math and science at the primary and secondary levels. The test showed U.S. fourth-and eighth graders performing just above the international average. The Program for International Student Assessment (PISA), given in the spring of 2006 assesses the same for the upper levels. Both assessments are well-known around the world. PISA is a program of the Organization for Economic Cooperation and Development (OECD) which is composed of 30 developed countries; however, Asian countries are not included. Students from an additional 27 partner countries took the 2006 test, a total of 400,000 students (NC State University, para 2).

The PISA 2006 results ranked U.S. students 25th out of 30 OECD countries in mathematics. U.S. students had a mean score of 474 while the OECD average was 498 points (NC State University, para. 3). This means that while the performance of students in other countries is improving, U.S. students’ performance starts a downward spiral at the middle levels and plummets after students reach high school. While U.S. students appear to be slightly above average in elementary school, they perform “near the bottom” at the high school level. This means that U.S. youth are less prepared to enter higher education institutions or the workforce—a detriment in today’s interdependent global economy which jeopardizes their future success. In 2006, U.S. 15 year olds earned a lower average score in mathematics and science than students in OECD countries (U.S. Department of Education).

In addition to being significantly weaker than their peers in other countries in math and science, PISA 2006 concluded:

1. The U.S. had a below-average proportion of top performers, with only 7.7 percent of 15-year-olds reaching at least level 5 on the mathematics scale, compared to an average 13 percent for the other OECD countries. These higher achievers are the most likely to pursue careers in science or math.
2. The percentage of U.S. students performing at low proficiency levels was higher than the average for students of OECD member countries. Twenty-eight percent of U.S. students demonstrated very low proficiency in math, performing at levels that can limit an individual’s ability to participate in society and the labor market (NC State University, para. 8-9).

The opposite trend appears within many Asian countries. While performing well in fourth grade, Asian students start to place on top of the chart during the middle school years as can be seen in Table 1. In fourth grade, students in Singapore, Hong Kong, Japan, and Taipei top the chart in math. In science, Asian students from these same countries are again at the top of the list. In eighth grades, the same countries top the lists in both math and science, now joined by Korea as number two and three, respectively.
<table>
<thead>
<tr>
<th>4th grade</th>
<th>Math</th>
<th>Science</th>
<th>8th grade</th>
<th>Math</th>
<th>Science</th>
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<tbody>
<tr>
<td><strong>International average</strong></td>
<td>495</td>
<td>489</td>
<td><strong>International average</strong></td>
<td>466</td>
<td>473</td>
</tr>
<tr>
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<td>594</td>
<td>553</td>
<td>Singapore</td>
<td>605</td>
<td>578</td>
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<tr>
<td>Hong Kong SAR&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td>575</td>
<td>547</td>
<td>Korea, Republic of</td>
<td>589</td>
<td>571</td>
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<td>Japan</td>
<td>565</td>
<td>543</td>
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<td>England&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>339</td>
<td>304</td>
<td>Morocco</td>
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<td>504</td>
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</tbody>
</table>

- **Average is higher than the U.S. average.**
- **Average is not measurably different from the.**
- **Average is lower than the U.S. average.**

TABLE 1: TIMSS 2003 SCORES
This study will explore: 1. Why academic motivation and attitudes toward school plummet among American adolescents when they reach secondary grades. 2. The impact of American and Asian culture and beliefs on effort and ability and their effect on academic motivation and attitudes towards school. These issues will be explored using the theoretical framework of Attribution theory. In addition, the literature review will explore research on academic motivation, attitudes, and locus of control to further understand this area of.

ATTRIBUTION THEORY

There are many theories associated with motivation. There is no clear consensus on how to define and set parameters for the construct “motivation.” The construct of academic motivation is multifaceted in that it is influenced by a number of social, situational and personality variables ((Ford, 1992). Any operational definition runs the risk of using an overly simplified measurement.

This research study will limit itself to one prominently accepted cognitive theory of motivation as the foundation for an operational definition of academic motivation that has particular relevance for young adolescent students and their teachers, namely Attribution Theory.

Attribution theory seeks to delineate how individuals explain events in their lives (Bruning, Schraw, & Ronning, 1999). When experiencing unexpected outcomes, individuals make attributions about the causes. Thus, the theory focuses on the factors to
which learners attribute their learning successes and failures. In academic motivation, students attribute their poor performance on a test, or a lower grade than expected, to effort (I didn’t study hard enough), ability (I’m just not good at this subject), or luck (the test focused on material I didn’t study) (p. 123). Weiner (1986) proposed that attributions depend on three dimensions of students’ beliefs about causality: locus of control, stability, and controllability. Students’ perseverance at an academic task often depends on whether they feel they have influence over the cause of their academic success or failure. Low achievers tend to attribute failure to a lack of ability and success to luck. These students are less likely to be motivated for improvement and may be pessimistic about future outcomes. High achievers, on the other hand, tend to attribute failure to a lack of effort and success to effort and ability (Graham & Weiner, 1996).

Academic Motivation
Increasing academic motivation is of great importance for those who work with young adolescents as this is a crucial developmental period in which youth begin to form an enduring sense of personal identity and agency about themselves. Considerable research has shown a decline in motivation and performance for many U.S. children as they move from elementary school into middle grades (Eccles & Midgley, 1989).

Dweck (1986), in her child development research, proposed that motivation can be guided by orientation toward one of two different classes of achievement goals: learning orientation (or mastery goals, task involvement) and performance orientation (or ego involvement). Learning oriented students want to increase their knowledge and competence. Those individuals view achievement situations as opportunities for acquiring new skills, extending mastery, or developing and improving ability (Ames & Archer, 1988; Butler, 1987, 1992; Dweck, 1986; Dweck & Leggett, 1988; Nicholls, 1984). They believe that the amount of effort is the cause of their success or failure. Motivation (even when faced with obstacles) has to do with interest, enjoyment, positive affectivity, effort, and the assessment and improvement of past performance.

Students who exhibit performance orientation, on the other hand, are interested in showing their ability. They believe that ability is the cause of success or failure and view intelligence as a fixed trait. They make more negative self-statements and attribute success to uncontrollable factors. Motivating effects have to do with the desire to achieve successful outcomes or to avoid unsuccessful ones relative to others, and to achieve success with little effort in order to prove ability. The consequences of performance orientation, when faced with obstacles, are helplessness, anxiety, negative affectivity, risk aversion, and low persistence (Ames & Archer, 1988; Butler, 1987, 1992; Dweck, 1986; Dweck & Leggett, 1988; Nicholls, 1984). Research has shown that adopting a learning-oriented achievement goal is related to positive educational outcomes for students. Recent studies suggest that the policies and practices in classrooms and schools influence students’ goal orientations (Ames & Archer, 1988; Maehr & Midgley, 1991).

For the past 20 years, most psychologists and educators have agreed that there are two main types of motivation: extrinsic motivation and intrinsic motivation. DeCharms (1968) was one of the first researchers to introduce this distinction. Intrinsic motivation (IM) is participating in an activity for itself, out of interest, and/or for the pleasure and satisfaction derived from simply performing it (Fortier, Vallerand, Briere, & Provencher, 1995). An intrinsically motivated reader will choose books and read them during free time at school or at home (Guthrie, Van Meter, Hancock, Alao, Anderson, & McCann, 1998). Individuals are intrinsically
motivated to pursue situations that will satisfy their basic psychological needs. Intrinsic motivation (I find it enjoyable to...) is the highest in self-determination. In support of this, Piaget (1952) once said that the pleasure in mastery or competence, in assimilating, and in experiencing action merely for its own sake is a basic fact of psychic life (cited in Ryan, 1991). Extrinsic motivation (EM) refers to external factors that prompt a person to engage in an activity (Deci, 1975). An extrinsically motivated student, for example, will complete an assigned reading primarily to meet course requirements (I believe it is important to...). Such a student is motivated to work hard because she or he views doing so as a means to an end that is unrelated to the reading task (Guthrie, Van Meter, Hancock, Alao, Anderson, & McCann, 1998). Educators would want to foster intrinsic motivation in their students and create a classroom environment that will lead to increased motivation.

**Student Attitudes**

The study of attitudes began in social psychology during the early part of the twentieth century. Attitudes can be viewed as both determinants and consequences of learning experiences and as being directly related to learning (Davies & Brember, 2001). There are numerous definitions of the construct “attitude.” Allport (1935) defined attitude as “A mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual’s response to all objects and situations with which it is related” (p. 810). Research shows those students’ attitudes toward school and school activities tend to become more negative as students get older. Results from a study of three Jacksonville, Florida elementary and middle schools, where students were tested for motivation for schooling and attitudes towards school, disclosed that students’ enthusiasm for having more years of school declined as they got older, regardless of grade level (Drummond, Bratina, & Drummond, 1997). A study by Sharples (1969) revealed that at three different age levels (9, 10, and 11 years), younger students tended to view all school activities more favorably than older students and that art and physical education were viewed more positively than reading, writing, and mathematics. In a large scale longitudinal research at the elementary school level, examining two thousand children’s attitudes at ages 8, 9, and 10 years old, it was found that as children got older, they viewed all school subjects less favorably, with the exception of topic work which grew in popularity each year. In addition, the study revealed that boys were more likely to be disenchanted with school than girls (Mortimore, Sammons, Stoll, Lewis, & Ecob, 1988, cited in Davies & Brember, 2001).

It is believed that attitudes do influence behavior, and this link is of significant importance to educators. Triandis (1971) suggested that attitudes consist of three components: (a) a cognitive component, which is a way for humans to categorize ideas, (b) an affective component, which is the emotion that charges the idea, and (c) a behavioral component, which guides behavior. Mouly (1960) noted that attitudes develop as a result of the satisfying or frustrating nature of our learning experiences and, once established, they facilitate or impede further learning and thereby become self-reinforcing.

The literature in the area of student attitudes and motivations is vast. There is evidence to suggest that students' feelings about their experience of the school environment contribute to shaping their educational plans and influence their learning (Ainley, Foreman, & Sheret, 1991; Ainley, 1995). Therefore, students' sense of achievement and positive attitudes toward the quality of school life are likely indicators of improved school performance.
Links between classroom, school, family and other environments on students’ outcomes have been explored (Moos, 1991). Just as the perceptions, attitudes, beliefs, and values of educators’ impact reform efforts, students’ beliefs and attitudes influence the school environment. Students must believe that they are respected as persons and that they are connected with the school. It was previously noted that students’ motivation for school declines with age.

The task of creating learning environments conducive to development of cognitive skills rests heavily on the talents of teachers. Those who have a high sense of efficacy about their teaching capabilities can motivate their students and enhance their cognitive development (Bandura, 1994). Praise and acceptance strengthen self-image, while criticism and disapproval lower it. Although older children and teenagers base their self-image primarily on the perceptions of their peers, they often do so because peer groups substitute for a perceived lack of adult affection. Students who feel good about themselves and who score high on self-esteem tend to also be the highest achievers (Gilmore, 1982). Thus the development of a child's self-image is perhaps the most important barometer of future success.

Mitchell and Conn (1985) noted that accomplishment is a key ingredient in improving self-image. A learning environment that offers encouragement, praise and opportunities for accomplishments will promote the development of a positive self-image. Children who lack opportunities to experience in-school success are likely to feel frustrated. Schools lacking success-inspiring atmospheres can provide non-inspiring, often alienating experiences for students. Teachers shape students' self-image either deliberately or inadvertently. Silberman (1971) posited: “It is the failure to develop self-respect, not the failure to teach subject matter, that is the real problem in education” (p. 67). When teachers focus on strengths and make children feel confident, a positive self-image can develop (Martin, 1980).

School is the main place where children develop the cognitive competencies and acquire the knowledge and problem-solving skills essential for participating effectively in the larger society. Many social factors, apart from the formal instruction, also affect children’s judgments and their intellectual efficacy. Such social factors include: peer modeling of cognitive skills, social comparison with the performances of other students, motivational enhancement through goals and positive incentives, and teachers’ interpretations of children’s successes and failures in ways that reflect favorably or unfavorably on their ability (Bandura, 1994). Locus of Control

As previously discussed, students need to feel in control of their learning in order to feel motivated. This includes having significant input into the selection of learning goals and activities and of classroom policies and procedures (Deci & Ryan, 1985). Locus of control is defined as a generalized expectancy of the extent to which a person perceives that events in one's life are consequences of one's behavior (Rotter, 1966).

Theories of control “suggest that a strong relationship exists between students’ perceptions of control over their learning and their subsequent achievement” (Fulk & Montgomery-Grymes, 1994, p. 28). Most management systems for the classroom assume that the locus of control is always with the teacher. The teacher manages the students and manages the learning process. More recent cognitive theories encourage a shift of the locus of control to the student in relation to his or her control over learning (Brooks & Brooks, 1993; Glasser, 1990). Increasing the students’ belief in their own capacity to achieve, perform, and apply skills may cause them to experience a sense of control over their learning.
Glasser (1990) repeated his assertion that to “understand what motivation actually is, it is necessary, first, to understand that control theory contends that all human beings are born with five basic needs built into their genetic structure: survival, love, power, fun, and freedom” (p. 43). No matter what teachers use as extrinsic motivations for students to learn, some students will exert their need for power or control and simply not learn if they do not agree with the reason for learning. In traditional classrooms the teacher is most commonly seen as the information giver; knowledge flows one way, from teacher to student. This type of environment may have an adverse affect on some students, increasing their likelihood to become disengaged from the learning process. Therefore, education can benefit from helping students gain more control of their learning.

DeBacker and Nelson (2000) showed that the degree to which students and their teachers collaborate on the development of learning and performance goals is directly related to the characteristics of a learning environment. When teachers emphasize learning strategies and the importance of student effort, students gain a greater sense of control over their own learning. That sense of control is particularly important for students who struggle in school. Students feel more in control when they can note their progress and attribute it to their efforts in using effective learning strategies (Holloway, 2000). It is important for educators to understand the important role played by self-confidence and a feeling of being in control. For example, research suggests that students perform at higher levels if they have confidence in themselves and that personal efficacy is a matter of internal locus of control (Pressley, 1987). While many things may contribute to school achievement, understanding the effects of locus of control can lead to more effective and worthwhile schooling for students and less frustration for teachers. Research has shown that having an internal locus of control is related to higher academic achievement (Findley & Cooper, 1983).

The advantages of an internal locus of control have been well established (Lefcourt, 1982). Considerable research has demonstrated that gifted children are more likely to have an internal locus of control (Harty, Adkins, & Hungate, 1984). This is likely due to the finding that children with an internal locus of control have an increased ability for impulse control, delay of gratification, and regulation of attention in classroom settings (Ferrer & Krantz, 1987). Students with more internal locus of control attribute their success to their own abilities and not to luck or chance, as do persons with an external locus of control (Thomas, 1980). When students realize that their thoughts control their actions (namely, their locus of control is internal), they can positively affect their own beliefs, motivations, and academic performance (McCombs, 1991). These findings are consistent with the results of a motivational study conducted by Basgall and Snyder (1988), showing that students who consistently attribute failures to external factors are more likely to lose their motivation to succeed than students who attribute success to internal factors. Anderman and Midgley (1997) noted, “Students who believe that their poor performance is caused by factors out of their control are unlikely to see any reason to hope for improvement. In contrast, if students attribute their poor performance to a lack of important skills or to poor study habits, they are more likely to persist in the future” (p. 41).

Locus of control is largely learned, and teachers can reshape students’ beliefs regarding their locus of control. Seligman's (1975) research on learned helplessness found that people tend to give up trying when they experience little or no control over what happens to them. If students are taught to have a more hopeful attitude--develop an internal locus of control--their grades tend to rise (Noel, Forsyth, & Kelley, 1987).
It is teachers’ responsibility to create an environment that develops students’ internal locus of control. Nunn and Nunn (1993) noted, “As conditions which promote the students’ personal well-being are increased, behaviors which represent an internal locus of control tend to increase” (p. 639). Teaching children from a young age that hard work can pay off could be beneficial. If they were taught to believe in their own ability to control their lives and the reinforcements in their lives, they might be more likely to succeed in school.

**CULTURAL DIFFERENCES**

Attribution theory was used as a tool to determine similarities and differences among American and Asian adolescents’ academic motivation and attitudes towards school and in making attributions across cultures. According to Purdie and Hattie (1996), the relative emphasis that a culture places on ability and effort in educational settings has received considerable attention. Building on the attribution model, Chen and Stevenson (1995), developed a model of cultural differences to account for both cross-national and ethnic differences in Asian and American students' academic achievement.

According to these authors, three aspects of culture are especially relevant to students' academic achievement: (1) the value placed on education; (2) belief in ability versus effort; (3) social support for academic pursuits from family and peers. The authors noted that the value a culture places on education and the relative emphasis a culture places on ability and effort are believed to influence students’ motivation and learning behaviors directly. In addition, the type of social support provided by family and peers are believed to influence students' motivation and learning behaviors indirectly.

**Value Placed on Education**

It is well known that Asian societies show a stronger commitment to education than American society (Chen & Stevenson, 1995). The rise of Japan, Singapore, and Hong Kong as economic powerhouses reflects this, as does Asian students’ scores on international assessments tests such as the TIMSS. The learning environment and learning methods also differ. Asian students learn by rote learning. The goal is to reproduce what is learned with limited focus on developing critical thinking skills. In addition, Asian students show great respect for authority, expecting knowledge to be handed down. In sum, they are often viewed as passive learners, exhibiting compliance, obedience and a concern only to absorb knowledge rather than understand it (Purdie & Hattie, 1996).

High parental expectations tend to be a strong predictor of academic achievement. A popular explanation for the success of Asian students is that Asian families place great emphasis on academic success (Sue & Okazaki, 1990) and expect more from their children academically compared to American parents (Stevenson & Lee, 1990). According to Stevenson, Lee, and Stigler (1986), Asian mothers and students place significantly greater emphasis on effort than ability in reasoning about the causes of success and failure. The traditional Chinese parenting style of “chiao shun” meaning training, is regimented and strict; however Chao (1994) noted that it may have a positive meaning for both mothers and children as it is accepted as normative in Chinese culture.
Asians place a greater value on education than Americans, viewing it as the only link to obtain occupational success in life (Chen & Stevenson, 1995). For example, in Japan, students compete from a very young age to get into the best high school and university. It is not uncommon for Japanese students to attend evening cram schools, “Juku,” for extra lessons in order to stand out from the crowd in order to gain admission to prestigious high schools and colleges (Education Japan, para. 9). In contrast, Americans do not necessarily believe that occupational success is a direct result of one’s educational background.

Belief in Ability versus Effort

Weiner (1986) proposes that students who attribute success or failure to effort or lack of it are more likely to work harder than students who attribute success or failure to innate ability. High achieving cultural groups have been found to place higher value on effort and lower value on ability than low achieving groups. There seems to be a stronger belief in the value of effort in Asian than in Western cultures (Holloway, 1988). He documented the predominance of effort over ability as the primary determinant of academic success in Japan. Chen and Stevenson’s (1995) research revealed similar findings. Using data from their research project in the USA and East Asia, empirical findings revealed that cultural groups who were more likely to emphasize the importance of effort for academic success also had higher academic achievement.

American school children seem to stress the importance of ability for achievement over effort and they tend to believe that people are born with different innate abilities, that these abilities are stable, and that they are easily revealed by standard tests.

Social Support for Academic Pursuits from Family and Peers

According to Chen & Stevenson (1995), there are cultural variations in the value placed on family obligation in American and Asian adolescents and these differences may, in part, explain differences in academic achievement and attitudes toward school observed between Western and Asian students. It might thus be the case that the poor academic performance of students from certain cultural groups, as well as the high achievement of students from other groups, are a result of their parents' educational aspirations, standards, and attitudes to learning. This appears to be true in the case of the relatively high academic achievement of Asian and Asian-American students, whose parents tend to hold high expectations and standards and to have positive attitudes to learning. Thus, Asian students may obtain success in school particularly because of the obligation they feel toward their families.

Asiatic values in the academic field can be regarded as values of the Confucian cultural region. Many traditions within Asian cultures such as confusianism emphasize family commitment, loyalty, solidarity, hard work, conformity, collectivism, educational achievement, and sacrifice for the good of the family (Uba, 1994). Asian families expect the children to respect authority and the wishes of the family. Being a collectivisist culture, Asian children are expected to respect the authority of grandparents, parents and even older siblings by seeking their
opinion on important matters and following their advice (Uba) including doing well in school in order to respect the family (Chao, 95).

American culture custom places strong focus on adolescent autonomy, socializing with peers, and on extra-curricular activities. Youth often hold part-time jobs to earn spending money. They place low obligation on respecting their family (Stevenson & Fuligni, 1995). This may explain why American students as a whole tend to perform at a lower level than students from many Asian countries such as China, Hong Kong, Japan, Korea and Taiwan.

DISCUSSION

The literature review on student academic motivation, attitudes, and locus of control support the notion that students perform better in school when placing a greater effort on learning. Asian students’ educational success may be a result of their belief that success is a direct result of effort and a commitment to family based on the cultural context of Confucianism. According to Chen and Stevenson (1995); they view high achievement as the result, primarily, of effort. American students believe, on the other hand, that educational success is based on innate ability. In addition, the Western value system places strong focus on the individual and less emphasis on social responsibilities to the family and elders. In order to close the educational gap between Asian and American adolescents, educators should focus on developing a greater belief in effort among American students.

CONCLUSIONS

There is a need for ongoing cross-cultural research on academic motivation and attitudes in order to understand cross-cultural similarities and differences in achievement and beliefs. While it is valuable to conclude that parental expectations and strong societal emphasis on educational success and effort have a positive impact on academic achievement, it is also important to understand how other variables impact students’ academic success. Researchers are looking at factors such as learning environment, teaching styles, curriculum, textbooks, length of school day, parental involvement, and other external variables in order to determine discrepancies in students’ academic success (Stigler & Perry, 1990; Holloway, 1986; Mullis, Dossey, Owen, & Phillips, 1991). Theories can then be developed encompassing students within various stages of schooling. However, the need to understand what motivates learning among students world-wide is not the only reason to examine cross-cultural similarities and differences. The growing global interconnectedness places great urgency on educators to better understand the potential differences existing in our students' approaches to learning, as well as their attitudes towards education and learning.
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SERVICE QUALITY IN INDIAN TECHNICAL EDUCATION

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ABSTRACT

Purpose – Describing the Service Quality Dimensions in Indian Technical Education and linking those service quality dimensions with student satisfaction with their educational experience.

Design/ methodology/approach – This study was conducted by administering 21 items of educational quality instrument and a six item satisfaction scale among the engineering students to determine their satisfaction with respect to the service quality that they experience in their education.

Conclusion – Among the 5 dimensions of educational service quality faculty members’ communication was most important factor and has significant contribution for the overall satisfaction of the students.

Keywords – Technical education, service quality, satisfaction

INTRODUCTION

Quality means doing it right when no one is looking. - Henry Ford

The significance of technical education to the augmentation of economy has dawned upon Indian consciousness in greater measure in the beginning of the 21st century. This realization has been reinforced by the status of globalisation that has respired new life in to the Indian economy.

The Government of India encouraged the spread of technical education. In the past decade, there has been a sharp increase in the number of private colleges as well as universities in India with the status of either deemed to be universities or state universities; higher education is continuing to expand, mostly in an unplanned manner, without even minimum levels of checks and balances (Umashankar and Dutta, 2007). It is imperative to look critically into the present continuing trends in technical education to ensure its quality and utility to face the challenges that the exciting 21st century will provide in the wake of globalization (Sakthivel and Raju, 2006). What should guide the higher education in order to achieve excellence? Higher Education should be guided through Service Quality concepts to achieve excellence (Kanji and Tambi, 1999). Service Quality concept is considered as an integrated system of principles, methods and best practices that will provide a framework for organizations to strive for excellence in everything they do (Srdoc, A., Sluga, A, and Bratko, I. 2005). The concepts and principles of Quality Management, which are effectively used in today’s competitive production and business environments, have become indispensable in today’s business of higher education (Hwarng and Teo, 2001).
We are in the midst of a general-purpose technological revolution. While some explain this revolution by different names such as information and communication technologies (ICT) or information technology (IT) but it is a technological revolution, which has brought about a renaissance in our lives. ICT permeate every facet of our life (Drucker, 1993; Varian and Shapiro, 1999; Evans and Wurster, 2000). ICT has percolated into our educational systems and technology integrated curriculum is proving to be an effective means to inculcate twenty-first century skills in education.

Education is the key to the resurgence of India. At the present juncture, India needs technological education of the highest order. What made USA what it is today – the most powerful nation in the world? It is education combined with hard work to translate that education into development that made USA undisputedly the king of all nations. The root of national wealth of USA is traceable to the excellent technological knowledge that was disseminated in the most admirable manner. “There is a strong correlation between a country’s competitiveness and the quality of higher education provided within that country”, say Borahan and Ziarati (2002). If India wants to raise the standard of its economy to that of economy of developed nations such as USA, UK, France, Germany and Japan, it should move forward. “In order to move forward and attain a higher level of quality in engineering education, the concept of total quality management (TQM) must be applied” (Jaraiedi and Ritz, 1994). Because TQM is universal and proven by many successful firms, it should be used to formulate the mission statement for the services provided by higher education institutions; a generic mission statement could be: “To provide quality education, research and related services to continuously satisfy stakeholders’ needs and achieve excellence through TQM” (Ho and Wearn, 1996).

The present investigative research focusing solely on the customers’ perspective throws up interesting questions – who should measure the quality of output of educational service? Who are the best judges/critics of educational quality? Zairi (1995) suitably answers these questions: students who are the recipients of the service (acquiring knowledge/information) are the ones who should measure the quality of the output; if one considers the student to be a customer then, similarly to the industrial context, the customer is the ultimate judge of quality, and that has to apply in the academic context.

If students are the customers, then will not aggrieved customers paint a true picture of their legitimate expectations and their undeserved disappointments? How do they rate the quality of engineering education offered to them in their institutions? What is the level of students’ satisfaction of academic performance? To answer these questions, there is a need for a study, which should spell out the critical factors of some effective and efficient quality management system like TQM, and the methods of implementing them.

Researchers found that the 5 dimensional service quality model did not hold up under all service experiences. New studies have demonstrated that the specific number of service dimensions associated with service quality varies depending on the services provided and the circumstances under which they are rendered Mels, Boshoff and Nel (1997) found two dimensions of service quality while Carman (1990) suggested seven dimensions of service quality. Cronin and Taylor (1992) argued against the conclusion that service quality is multidimensional and instead proposed that the construct of service quality is unidimensional. In the end, researchers have concluded that the dimensionality of service quality is situation specific.
PERCEPTUAL DIMENSIONS OF SERVICE QUALITY

To understand the importance of this research, background is provided on measurement scales and dimensions. A scale that measures a psychological construct such as satisfaction or service quality is made up of individual questions that characterize different attributes of the construct; each attribute provides specific information about the overall construct. For example, a measure of service quality may have questions that assess the attributes of speedy service, reliability of service, and friendliness of service personnel. Respondents' ratings of those attributes are summed to get an overall score that indicates the degree to which the construct pertains to them. If no further analysis of the scale's dimensionality is conducted, then researchers are left with analyzing the summed score and/or the individual items.

This is problematic for several reasons. If only the summed responses are used, significant information is lost. A researcher who sums the rating on 20 items in a service quality scale into a single score has no way of identifying which attributes of service contribute to the score. Alternatively, if only individual items are used, interpreting the results in an actionable way becomes a problem. When faced with scores for 20 items, it is difficult to identify which responses to which items are more important, this problem is compounded due to multicollinearity between items. Multicollinearity refers to the intercorrelation between items. It reduces the validity of regression analyses of survey results because regression models assume independence of items (Grapentine 1997). A regression analysis of service quality items on overall satisfaction with service will violate this assumption because perceptions of individual items such as reliability, responsiveness, and competence will likely be correlated. In other words, a student's perception of faculty member competence will be significantly associated with perceptions of faculty member friendliness, trustworthiness, and reliability. Therefore, the analysis can give erroneous regression coefficients that incorrectly state the importance of individual items.

One way to deal with the problems above is by discovering the underlying perceptual dimensions of the construct measured by the scale. Perceptual dimensions describe how respondents organize and arrange perceptions about concepts in their mind. For example, respondents may group questionnaire items about dependability of service, keeping promises to customers, timely delivery of service, and accurate record keeping under a perceptual dimension that can be labeled as reliability. This means that respondents answer the questions in this dimension in a predictable pattern that differs from responses to questions for other dimensions like responsiveness or assurance, if all of the items in a scale can be grouped into separate uncorrelated dimensions, and then analyses of scale responses are more valid.

The dimensional nature of service quality is an important issue because it can be used to explore the theoretical relationships between service constructs. For instance, knowing that service quality is made up of 5 dimensions can permit researchers to explore the relationships between each dimension and constructs such as satisfaction and loyalty. This is more challenging to accomplish if service quality is described at the individual attribute level.
OBJECTIVES OF THIS STUDY

1. To describe the perceptual dimensions of the student assessments of the quality of their technical education.
2. To link those dimensions with student satisfaction with their educational experience.

METHODS

Measures

Educational Service Quality (ESQ). An educational service quality instrument from Holdford and Reinders (2001) was used. Performance measures similar to those in the SERVPERF service quality measure developed by Cronin and Taylor (1992) were used. The original 41 items in the ESQ instrument consisted of items that assessed student perceptions about learning resources in the college, faculty, school administration (i.e., deans, department chairs, and office personnel), and perceptions of their educational progress. Fourteen items from the original instrument relating to perceptions of educational progress were dropped from further analysis. The final 27 items in the instrument are listed in Table 1.

Overall Satisfaction. A 7-item series of questions relating to overall satisfaction with various aspects of the educational experience were also asked of the students. A Cronbach’s alpha coefficient calculation of 0.85 showed the 6-item instrument to be internally reliable. The 6 satisfaction items are included in Table 2.

Administration of the Instrument. The ESQ survey was administered to two hundred and one (201) Pre-final year and final year engineering students of selective colleges and universities in Tamilnadu, India.

Hypotheses. A number of hypotheses were proposed relating to expected relationships between service quality and satisfaction. The first (H1) was based upon the assumption that each dimension of educational service quality should have a significant relationship with overall satisfaction. H1: Administration, Students Safety, Faculty Communications, Facilities, and Interpersonal behaviour of the Faculty. Dimensions each are significantly associated with the 6-item overall satisfaction measure.

The next hypothesis consisted of a series of sub hypotheses that were used to provide evidence of the validity of student responses. The assumption was that if ESQ is a valid measure, then its dimensions should correlate in a predictable manner with individual satisfaction items (H2).

H2: Some dimensions of educational service quality should predictably correlate more highly with some individual satisfaction items than others:

H2a: Administration should predict satisfaction better than any other dimension of educational service quality.

H2b: Faculty communication aspects should predict satisfaction better than the other dimensions of educational service quality.
DATA ANALYSIS

Descriptive Analysis

Demographic data were not collected on individual respondents because of concerns about confidentiality. In addition, demographic variables of gender, age, college education, degree, and grade point average did not have significant impact on student evaluations of service quality.

Mean scores and standard deviations for student responses to the service quality instrument are shown in Table 1. The scale varied from 5 (strongly agree) to 1 (strongly disagree) meaning that greater the number, the better the assessment. Mean scores ranged from 3.81 to 4.03 with student responses extending from 5 to 1 for most questions. All analyses of the collected data were conducted using SPSS for Windows.

Exploratory Factor Analysis of the ESQ

A principal components exploratory factor analysis with varimax rotation was performed on the original 41 items in the ESQ. Principal components factor analysis is a statistical technique that transforms data from one set of variables into a smaller set of uncorrelated factors. An orthogonal varimax rotation was conducted because it maximizes the amount of variance described by a factor and minimizes the correlation between factors.

Factor analysis of the 41 items revealed a 5-factor structure that explained 62.69% of total variance. The criteria for retaining the 5 factors were eigenvalues greater than one and the ability to describe and label each factor. Several items were dropped from the ESQ because they did not load onto an easy to identify factor. To assess the reliability of responses, Cronbach’s alpha coefficient was calculated for the variables within each factor solution. All factors had coefficients greater than or equal to 0.70, indicating evidence of reliability. The final 27 items in the ESQ and the 5 factors, their loadings, and their Cronbach’s alphas are listed in Table 1.

Factor 1 was labelled administration and was composed of 7 items. It explained 15.84% of the variance in student responses to ESQ, and the 7 items had a total Cronbach’s alpha of 0.89. Items in this factor consisted of all of the questions relating to the administration of the provided by the college or University. The fact that the 7 items were originally meant to assess college/university administration gives some evidence that students responded as expected.

Factor 2 was labelled faculty communication and comprised 4 items that described the quality of communication between faculty members and students. It explained 9.78 % of variance and had a Cronbach’s alpha of 0.78. It was distinct from factor 4, interpersonal faculty member behaviors, because it addressed issues of
communication only, while factor 4 examined a broader range of faculty member behaviors.

**TABLE 1. FIVE FACTOR MODEL OF SERVICE QUALITY OF HIGHER EDUCATION (N=201)**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mean</th>
<th>SD</th>
<th>Factor Loading</th>
<th>Percent Variance Explained</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1- Administration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Friendly and Easy to approach</td>
<td>4.00</td>
<td>.903</td>
<td>.700</td>
<td>15.84</td>
<td>.8905</td>
</tr>
<tr>
<td>2) Prompt and timely Service</td>
<td>3.97</td>
<td>.866</td>
<td>.651</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Treat you with esteem</td>
<td>3.92</td>
<td>.815</td>
<td>.678</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Trustworthy</td>
<td>3.91</td>
<td>.846</td>
<td>.695</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Efforts to identify your exact needs</td>
<td>3.83</td>
<td>.855</td>
<td>.670</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Responsive to students confidentiality</td>
<td>3.89</td>
<td>.850</td>
<td>.599</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Willing to help students</td>
<td>3.97</td>
<td>.880</td>
<td>.511</td>
<td></td>
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</tr>
<tr>
<td><strong>Factor 5- Student Safety</strong></td>
<td></td>
<td></td>
<td></td>
<td>6.92</td>
<td>.7381</td>
</tr>
<tr>
<td>8) Students complaints are constructively handled</td>
<td>3.81</td>
<td>.926</td>
<td>.710</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Sensitive to your safety aspects</td>
<td>3.82</td>
<td>.884</td>
<td>.720</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 2- Faculty Communication</strong></td>
<td></td>
<td></td>
<td></td>
<td>9.78</td>
<td>.7856</td>
</tr>
<tr>
<td>10) They will give me adequate feedback about my performance frequently</td>
<td>3.93</td>
<td>.877</td>
<td>.642</td>
<td></td>
<td></td>
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<tr>
<td>11) Reliable in their grading practices</td>
<td>3.93</td>
<td>.848</td>
<td>.580</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12) Make clear what they expect of you</td>
<td>3.87</td>
<td>.874</td>
<td>.593</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13) Attempt to understand my specific needs</td>
<td>3.90</td>
<td>.863</td>
<td>.590</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 3- Facilities</strong></td>
<td></td>
<td></td>
<td></td>
<td>15.77</td>
<td>.8829</td>
</tr>
<tr>
<td>14) Electronic access to the current trends in Engineering Sciences &amp; information</td>
<td>4.00</td>
<td>.738</td>
<td>.559</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15) Comfortable and Inviting Location</td>
<td>4.03</td>
<td>.796</td>
<td>.611</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16) Computer laboratory (round the clock access to intranet as well as internet)</td>
<td>4.00</td>
<td>.837</td>
<td>.695</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17) Physical facilities readily available for use around the clock</td>
<td>3.99</td>
<td>.872</td>
<td>.609</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18) A full range of up-to-date</td>
<td>3.97</td>
<td>.771</td>
<td>.614</td>
<td></td>
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</tr>
</tbody>
</table>
teaching tools and equipments are provided
19) Faculty are updated with the developments in their area of expertise
20) Have the Knowledge to respond your queries

Factor 4- Interpersonal Behavior of Faculty
21) Behavior of faculty instills confidence in you
22) Student confidentiality is promptly maintained by Faculty
23) Staff are Polite and Courteous with you
24) Willing to listen to your individual point of view
25) The behavior of staff makes you feel that you can trust them and have confidence in them.
26) Easily approachable after class hours
27) Keeps their promises

<table>
<thead>
<tr>
<th>Factor 4- Interpersonal Behavior of Faculty</th>
<th>3.91</th>
<th>.834</th>
<th>.632</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.36</td>
<td>.8712</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Model</td>
<td>62.69</td>
<td>.85</td>
<td></td>
</tr>
</tbody>
</table>

Note: Scales are 5 = strongly agree, 4 = agree, 3 = somewhat agree, 2 = disagree, 1 = strongly disagree. 25 surveys could not be used in this analysis due to missing responses.

Factor 3 consisted of 7 items and was labelled Facilities. The Facilities section included questions relating to the facilities of the college/university and explained 15.7% of variance. The Cronbach’s alpha reliability coefficient was 0.88 and consisted of all items originally designed to assess college/university’s resources. This provides further evidence that students responded to the instrument as expected.

Factor 4 consisted of 7 items and was labelled Interpersonal Behaviour of faculty. The factor was labelled interpersonal behaviour of faculty because it contained items that described behaviours associated with development of interpersonal relationships between students and faculty members (e.g., willing to help, treat you with respect). Faculty member Interpersonal behaviour explained 14.36 % of variance and had a Cronbach’s alpha of 0.87. It was distinct from the other faculty members.

Factor 5 consisted of 2 items and was labelled Students Safety. It explained 6.92% of variance and had a Cronbach’s alpha of 0.73. The factor was labelled students safety because it contained items that described student’s safety aspects.
TABLE 2. DESCRIPTIVE STATISTICS OF ELEMENTS OF SATISFACTION WITH HIGHER EDUCATION

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities available in the college/University campus</td>
<td>4.18</td>
<td>.773</td>
</tr>
<tr>
<td>Quality of Education</td>
<td>4.11</td>
<td>.733</td>
</tr>
<tr>
<td>Quality of teaching</td>
<td>3.95</td>
<td>.832</td>
</tr>
<tr>
<td>Intellectual Development since enrolling in this college/university</td>
<td>3.97</td>
<td>.827</td>
</tr>
<tr>
<td>Interpersonal behavior of Faculty</td>
<td>4.06</td>
<td>.775</td>
</tr>
<tr>
<td>Curriculum of your course</td>
<td>4.18</td>
<td>.775</td>
</tr>
</tbody>
</table>

Note: Scales are 5 = strongly agree, 4 = agree, 3 = somewhat agree, 2 = disagree, 1 = strongly disagree. 25 surveys could not be used in this analysis due to missing responses. Cronbach’s alpha for the 6 items in the satisfaction scale = .799 (n=201)

HYPOTHESIS TESTING

The above framed hypothesis is tested by using PLS (Partial Least Squares). PLS is sometimes called "Projection to Latent Structures" because of its general strategy. Partial Least Squares (PLS) regression is a multivariate data analysis technique which can be used to relate several response (Y) variables to several explanatory (X) variables.

PLS regression is a recent technique that generalizes and combines features from principal component analysis and multiple regressions. Its goal is to predict or analyze a set of dependent variables from a set of independent variables or predictors. This prediction is achieved by extracting from the predictors a set of orthogonal factors called latent variables which have the best predictive power. PLS regression is particularly useful when we need to predict a set of dependent variables from a (very) large set of independent Variables (i.e., predictors). The results of the analyses are presented below.
FIGURE 1: PLS REGRESSION OF SERVICE QUALITY DIMENSIONS WITH SATISFACTION
All 5 dimensions of service quality had significant relationships with overall satisfaction with the educational experience providing evidence to support H₁. The analysis showed the extent to which the service quality dimensions predicted overall satisfaction. Analysis of service quality dimensions on individual satisfaction items provided evidence to support all of the proposed hypotheses of H₂. Faculty Communication H₂b dimension is predominantly predicted satisfaction better than any other dimensions of Educational Service Quality. Administration H₂a and Interpersonal behaviour of faculty H₂d comes next in contributing satisfaction better than the remaining dimensions of Educational service Quality. Facilities H₂c and safety H₂e aspects got least scores and their contribution for satisfaction is minimum.

Finally, Factor 2, Faculty communication predicted the satisfaction item best of all dimensions providing support for H₂b.

LIMITATIONS

This study exclusively examined responses by pre-final years and final year engineering students in Tamilnadu. The ability to draw similar conclusions to other students in other years of education, types of education, or geographic locations is restricted. In addition, evaluations of educational quality by other significant stakeholders such as educators, employers, and the public are also not considered.

CONCLUSIONS

This study demonstrated that the ESQ scale is a valid and useful tool for assessing the quality of educational services. Student responses to the scale can be used to identify sources of satisfaction and dissatisfaction with educational experiences. Another research conducted by Holdford and Patkar (2003), in their research article “Identification of the Service Quality Dimensions of Pharmaceutical Education” identified and mentioned that faculty members’ interpersonal behavior was most important in contributing satisfaction.

But this research found 5 dimensions of educational service quality. Students thought that all 5 dimensions were important in determining satisfaction with their education, but that faculty members’ communication was most important. The remaining dimensions in the order of importance that the students attributed to them were administration, faculty member Interpersonal behaviour.
REFERENCES


AN EXPLORATORY STUDY OF SMALL BUSINESS CONSTRAINTS IN ETHIOPIA: A CASE STUDY OF THE RETAIL CLOTHING INDUSTRY IN ADDIS ABABA

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ABSTRACT

Small business has long been touted as a driving force for economic development by way of the employment opportunities provided. In this context, the efficiency of small business should be of paramount concern to governments, particularly those with the responsibility of delivering economic growth and improved living conditions to the citizens of less developed countries. This paper presents the results of an exploratory study which sought to determine the primary constraints to efficiency and profitability for small businesses in Ethiopia. More specifically, the study focused on the retail clothing industry in Addis Ababa. The results of the study indicate that a number of constraints to performance were common. These include human resources, rampant corruption of government officials, high inflation, lack of finance, and dysfunctional competitive practices.

INTRODUCTION

The development of an efficient private sector in Sub-Saharan Africa is of critical importance in the quest to deliver sustainable economic growth and rising living standards in the region (Ramachandran & Shah 1999). In support of an efficient private sector, there are many factors that influence sustained economic growth, including geography, education, access to land and finance, and infrastructure (Bleaney & Nishiyama 2002). In addition, entrepreneurial activity and effective small business has often been proffered as an important mechanism to promote employment, productivity, and innovation, and hence, progress the economic development of a country (Daniels & Mead 1998; Klapper & Delgado 2007; Spencer & Gomez 2004; van Praag & Versloot 2007).

The World Bank, in its quest for the formula for economic development, suggested that the unit of measurement of entrepreneurship may be considered as “any economic unit of the formal sector incorporated as a legal entity and registered in a public registry, which is capable, in its own right, of incurring liabilities and of engaging in economic activities and transactions with other entities” (Klapper et al. 2007, p.4). While there is no suggestion of organisation size in the above definition, the proliferation of small business in Africa, and the dearth of large firms, would suggest
that entrepreneurial activity and small business are two sides of the one coin. Indeed, small businesses are pervasive in the African commercial landscape. In Sub-Saharan Africa, 80 percent of firms are small (IFC 2006), and employ a considerable proportion of the available adult population. As such, most governments recognise the significance of the small business sector, and consequently place great emphasis on promoting this sector of the economy (Daniels & Mead 1998).

However, many constraints to small business remain in much of Sub-Saharan Africa. These constraints include unfair competition from the informal sector, poor access to land and infrastructure, lack of access to finance and requirements for collateral, low productivity of human resources, inequality in tax administration, and corruption (Amin 2007; Hansson 2004; Kellow 2007; UNCTAD 2006; UNCTAD 2007; World Bank 2003).

This paper will explore the constraints to the effective operation of small business in Ethiopia, with a specific focus on the retail clothing industry in Addis Ababa. The paper will begin by briefly reviewing the economic development of Sub-Saharan Africa since the 1960s, and the economic situation in Ethiopia. The paper will then outline the connection between small business and economic development, before proffering the methodology, results, and conclusions of the study.

ECONOMIC DEVELOPMENT IN SUB-SAHARAN AFRICA

On virtually every measure of economic development, the countries of Sub-Saharan Africa have demonstrated either stagnation or negative outcomes since the 1960s (Cheru 1989; Fosu, Mlambo & Oshikoya 2001; Thurow 2003; UNCTAD 2007). To exacerbate the situation, annual economic growth has generally been volatile, and well below the average 3 percent annual increase in population over the last 30 years (Arbache & Page 2007). Indeed, Sub-Saharan African countries must now maintain long-term economic growth of 6-7 percent to achieve any inroads into poverty reduction (Funke & Nsouli 2003; Hope 2002; Nyikuli 1999).

The parlous state of economic development in the countries of Sub-Saharan Africa has largely been attributed to internal factors, such as poor macro-economic and political fundamentals, including despotism, rampant corruption, and lack of infrastructure (Funke & Nsouli 2003; Mwakikagile 1999). At the core of Africa’s repressed development since the 1960s is the failure of African leaders to provide effective government; “Africa has suffered grievously at the hands of its Big Men and its ruling elites” (Meredith 2005, p.686).

But external factors have also played their part to repress economic development. The pre-1960s colonial legacy left the countries of Sub-Saharan Africa with, firstly, commodity-based economies designed primarily to provide European markets with cheap raw materials (Davidson 1994); secondly, limited industrial sectors designed to supply the local market for some goods and secure a sink for European manufactures for most other goods (Nyikuli 1999; Seidman 1972); and thirdly, a low level of human resource development, which some believe was deliberately designed by the colonial powers to repress independence ambitions (see, for example, Meredith 2005).
Following the independence of most of the countries of Sub-Saharan Africa in the 1960s, successive governments nationalised industries and devised protectionist socialist policies to promote an import-substitution industrialisation strategy that never matured into export-led growth (Abegaz 1994; Okello 2003; Sachs 2005). The net result of this historical progression is not only repressed development, but also an inward orientation of business people that inhibits entrepreneurship, and ultimately, integration into the global commercial community (Clark 1995; Mwakikagile 1999).

Consequently, Africa today, remains on the periphery of global commercial integration. Africa contributes less than 1 percent of world trade, despite having 20 percent of the world’s population (Ford 2002). More concerning is that Africa’s contribution to world trade is down from 4.2 percent in 1960, and 3 percent in 1986 (Ibru 1997). Regional integration is also low, resultant from a “colonial tribalism” (Davidson 1994, p.198) style of rule that led to the fragmentation of the African continent; less than 5 percent of Africa’s trade is with other African countries (Ibru 1997; Mwakikagile 1999; Quelch & Austin 1993).

Developed world perceptions now also contribute to Africa’s continued low economic growth. From the perspective of the developed world, Africa tends to be associated with negative images, revolving around poverty, indebtedness, famine, ethnic conflict, HIV/AIDS, corrupt governance, and malignant instability (Ford 2002; Quelch & Austin 1993; Sachs 2005).

The above discussion would indicate that the economic situation in Africa overall remains tenuous for a number of reasons, including colonial legacy, poor macro-economic and political management, and developed-world perception. The next section will focus more specifically on the economic situation in Ethiopia.

**THE ECONOMIC SITUATION IN ETHIOPIA**

Ethiopia is a country located in the Sub-Saharan region of the African continent. The country’s economy is highly dependent on agriculture; 48.8 percent of GDP and 77 percent of exports are agricultural (predominantly coffee, comprising 65 percent of total exports). Services comprise 38.3 percent of GDP, while manufacturing contributes 23 percent of exports (CIA Factbook – Ethiopia 2008; Economy – Statistics 2008). As a consequence of the dominance of the agricultural sector, 85 percent of the Ethiopian population of 77.4 million live in rural areas, and 80 percent are employed in farming activities (Facts and Figures 2008).

Economic growth has accelerated in recent years, albeit from an extremely low base. Economic growth during the 1970s and 1980s was <2 percent average per year, including periods of negative growth (Arbache & Page 2007); between 1992 and 1996 this increased to an average of 6.2 percent (Economy – Statistics 2008); by 2007 the GDP growth rate had risen to 9.8 percent (CIA Factbook – Ethiopia 2008). Despite this impressive rate of economic growth, which now rivals some of the highest rates of growth in Asia, GDP per capita remains appallingly low at US$560 (Economy – Statistics 2008). Indeed, 80 percent of the population subsist on <US$2 per day (Facts and Figures 2008), suggesting that discretionary spending is generally very limited and focused on the essentials of life. In addition, the impressive GDP growth rate of 9.8 percent must be viewed in the context of a population that is increasing at a rate of
2.6 percent per year, and an inflation rate of 16 percent (CIA Factbook – Ethiopia 2008). This might be compared to a high performing economy, such as that of China with a GDP growth rate of 11.4 percent, 0.6 percent per year population increase, and an inflation rate of 4.7 percent (CIA Factbook – China 2008).

Historically, Ethiopia was never colonised by European powers, except for the Italian occupation for 5 years from 1936 to 1941 (Zewde 2005). As such, an adverse colonial legacy does not exist, as it does, for example, in Rwanda (Mamdani 2007; Reader 1998). Since 1990, Ethiopia has maintained the overarching objective of economic transition from the command economy of the *Derg* to a market economy focused on the development of the private sector. While the objective still remains, the implementation has been stifled, reportedly because the government lacks the will to do so (Hansson 2004).

The poverty in Ethiopia, as well as its government’s inaction on economic reform, continues to foster a number of tangible constraints on entrepreneurial activities. Firstly, the major items of household expenditure for Ethiopian families are food (51 percent), housing/water/fuel (18 percent), and clothing/footwear (7.5 percent). The expenditure pattern is largely a consequence of household size, which in rural areas, averages 6 persons per household, and in Addis Ababa, 5 persons per household (Household Income, consumption, and expenditure survey – 2003/2004 2008). Discretionary spending is therefore extremely limited, and focused on the essentials of life. Secondly, education levels are low: 4.9 percent of people in rural areas, and 38 percent of those in urban areas, have completed upper primary schooling only (i.e., grades 7-8) (Household Income, consumption, and expenditure survey – 2003/2004 2008). This low level of education most certainly impacts adversely on the efficiency of small business (Daniels & Mead 1998; Djankov et al. 2008; Kristiansen et al. 2005; Ramachandran & Shah 1999). Thirdly, unemployment and underemployment is high; about 59 percent of the urban population is economically active; 48 percent of these are aged 15-29, reflecting a young population (median age: 18 years) with short life spans (life expectancy: 49 years). Of those participating in economic activity, 23 percent are absorbed in retail trade (CIA Factbook – Ethiopia 2008; Household Income, consumption, and expenditure survey – 2003/2004 2008).

In summary, Ethiopia is one of the poorest countries in the poorest region of the world. Recent economic growth has been impressive, but this needs to be viewed in the context of population growth, inflation, and the low economic base from which the growth is being measured. The country’s economic volatility continues to be exacerbated by the frequency of climatic disasters (e.g., famine; floods), and conflict with neighboring countries (e.g., Eritrea; Somalia) (Hansson 2004). The proliferation of an efficient and effective small business sector is often touted as a mechanism for economic development because of the employment, productivity, and innovation opportunities offered. This issue is discussed next.

**SMALL BUSINESS AND ECONOMIC DEVELOPMENT**

Theories of economic development have evolved considerably from those of the early 20th-century theorists. For example, Fanfani (1935, p.217) suggested that the different rates of economic growth between Protestant northern Europe and Catholic southern Europe was due to the cranial shape of the ruling classes of the north being composed
of “brachycephalic individuals” (i.e., short-headed), while those of the south were “dolichocephalic individuals” (i.e., long-headed). Likewise, Huntington (1924, p.411) argued that it was climatic conditions by way of “climatic handicaps” that inhibited economic growth; maximum growth occurring in temperate regions with moderate seasonal variations. He suggested that “climatic monotony” (such as that experienced in Southeast Asia) inhibits creativity and innovation. Markham (1947, p.29) followed this line of thought by concluding that the ideal climate to promote economic growth includes temperatures between 60°F and 76°F, and relative humidity at noon between 40 percent and 70 percent. These theories lost credibility with the post-World War II explosive development of many of the countries of Asia, who were burdened with the wrong cranial dimensions, as well as hot and humid climates.

By the 1990s, the World Bank (1993, p.26) was arguing that the quality of government was the major contributor to economic development by way of the “pragmatic adherence to the fundamentals”, including low inflation, sound fiscal policies, high savings rates, and high levels of investment in education. It is a view that accounts for both present and future fundamentals, maintaining a focus on sustainable development.

Schumpeter (1934) was perhaps the first to link economic development to small business by suggesting that development is rooted in innovation. He perceived the entrepreneur (rather than the capitalist) as the linchpin of economic growth, and the role of government to support the innovative activities of the entrepreneurs. Porter (1990) later argued that domestic demand and domestic rivalry at the small business level ultimately leads to competitive clustering, consolidation, and stimulation for international competitive advantage. Indeed, Klapper and Delgado (2007) empirically found a strong positive relationship between business density and per capita GDP in a study of 84 developing and industrial countries.

In Sub-Saharan Africa, 80 percent of firms are small (IFC 2006), so it is obviously not merely the proliferation of small businesses that creates economic growth. To this end, Spencer and Gomez (2004) confirmed a negative relationship between per capita GDP and the percentage of small firms in a country. It would appear that the proliferation of small business is a characteristic of less developed countries that lack the economies of scale provided by a considerable large firm sector. In addition, the general marginal profitability of small businesses in Africa means that employees are most often paid very low wages, which, while alleviating absolute poverty, contributes to low productivity and poverty stricken households.

Indeed, there appears to be a number of enabling conditions that must be present before the small business sector can contribute to the economic development of a country. For example, van Stel et al. (2005) found that entrepreneurship negatively impacted on GDP growth for developing countries. They postulated that, in developing countries, small business owners are confronted with an uneducated workforce, marginal profitability, and low levels of innovation, all of which influence the development of small businesses into large, and envelop the country in a “poverty trap” (Sachs 2005).

In the case of Ethiopia, a number of recent studies have pointed to such factors as unfair competition from the informal sector, poor access to land and infrastructure,
lack of access to finance and requirements for collateral, low productivity of human resources, inequality in tax administration, and corruption, as constraints on small business, and hence, inhibitors to the economic development of the country (Amin 2007; World Bank 2003; Hansson 2004; Kellow 2007).

This section has provided the theoretical background for the link between small business, entrepreneurship, and economic development, within which government plays a pivotal facilitation role. It is in the context of this theoretical background that the constraints to small business in Ethiopia will now be set.

**METHODOLOGY**

The sample consisted of 10 small business owner-managers in the retail clothing industry in Addis Ababa. Following the work of Bigsten and Gebreeyesus (2007) and Daniels and Mead (1998), a ‘small business’ was defined as one that employs 10 or fewer people. The businesses were involved in the retailing of clothing items. The owners purchased their stocks from importers and wholesalers, mostly located in the Merkato area of Addis Ababa.

The respondents were interviewed in the Amharic language using a semi-structured questionnaire; the responses were subsequently translated by the Ethiopian research assistant. The interview questions focused on the following basic issues:

- The main expenditure items for the business;
- The problems most affecting business operations and profitability; and,
- Changes the respondents believed were required to be implemented to alleviate the mentioned problems.

**RESULTS**

Retailing clothing stores in Ethiopia are generally referred to as ‘boutiques’. The majority of the boutique owners (approximately 80 percent) were Gurage (goo-rah-gay). They belong to one of Ethiopia’s ethnic groups, comprising 4.3 percent of the total population (CIA Factbook – Ethiopia 2008) and come from a mountainous area about 150 kilometres southwest of Addis Ababa. The Gurage are well-known for their work culture and skill as traders (Ford 2008). They typically have small farms in their villages, and often leave to secure a better living standard by way of retail trade in the major cities. The strong family affiliation of the Gurage contributes to the working culture. For instance, when a family member moves to Addis Ababa, they will pre-arrange a working environment for those family members that follow. In general, they often start with economic activity in the informal shoe polishing sector. They will then save their earnings, and open a small shop. In time, the small shop is improved and expanded by way of the capital investment of profits.

The boutique owners were predominantly aged 15-29; not only the owners, but also the employees. Most were unwilling to report the exact annual sales or annual expenses of their stores. The reason for their reluctance is that small businesses in Ethiopia generally maintain a set of accounts that understates sales and overstates expenses to minimise taxation obligations; on the other hand, they generally have little grasp of the true financial situation.
The boutique owners generally agreed on a number of common constraints that continue to affect their business operations and profitability. These are discussed next.

**Human Resources**

The respondents were well aware that lack of education was a major impediment to the success of their businesses; lack of education in management skills for themselves, as well as lack of basic education for their employees.

**Corruption: Government Customs Authorities**

The enabling environment is always an important component of business effectiveness in any country (Trulsson 2002). In Ethiopia, the government customs authority is a major polemic in the retail clothing industry. Transit time of goods through the customs process is heavily dependent on graft payment. Traders are forced to make corrupt payments because delay to market may mean that other suppliers saturate the market with similar products.

In addition, smuggled contraband negatively impacts on the retail clothing sector. The problem is that all traders do not pay equal tariffs and taxes for the imported goods, as required by law. For example, a trader may import three 20-foot seatainers, but by graft payment to certain customs officials, pay import tax for only two seatainers. The products contained in the other will reach the marketplace tax free, enabling the trader to undercut competitors by selling below the going market price, and negatively impacting on the businesses of those traders who lack access to corrupt officials.

Another problem for the retail clothing industry is the mixing of new and secondhand clothes. This is a particularly salient issue in rural areas where customs control is even weaker and more corrupt than in urban centres. The secondhand clothes are obtained corruptly from donated clothing items from developed countries, mixed with new clothes, and sold at a price below the going market value. Rural poverty provides a ready demand for low cost and low quality goods.

**Corruption: Private Economic Activity by Government Employees**

Government employees (e.g., customs authorities) are often involved in economic activities in competition with private enterprise. Indeed, a number of boutiques were reported to be owned by government officials. Their competitive advantage rests in paying no import tax, thus, undercutting the prices offered by formal traders.

**Inflation Rate**

The inflation rate in Ethiopia is high; 16 percent in 2007 (CIA Factbook – Ethiopia 2008). As a result, in recent years, the purchasing power of the Birr (Ethiopian Currency) has declined markedly. In contrast, incomes have generally failed to rise as an offset to the high inflation rate. The main reason for the high inflation in recent years is the price of fuel. Previously the government subsidised fuel prices to some extent as a social welfare initiative. This subsidy has now been removed.

In terms of discretionary spending, the respondents indicated that consumers were now spending, both proportionally and in real terms, more on food and less on clothing. In addition, shop rents are continuously increasing. While the owner of the property and the trader may initially agree on a rental amount for the year, the property owner may unilaterally increase this amount during the year because of
unforeseen expense increases. Rising prices has also seen a shift in customer preference for clothing items. For example, the respondents indicated that there has been a marked shift in preference from clothing manufactured in Turkey to that manufactured in China, since the Chinese product is considerably cheaper. In the previous two years, inflation has increased prices by over 30 percent, while during the same period, salaries have barely changed. Changing demand is increasing the pressure for low cost and low quality goods.

**Price Setting**
The method of price setting in small business in Ethiopia varies considerably between sector. Overall, the most common methods are mark-up pricing (44 percent), charging the going market price (36.3 percent), and negotiation/haggling with the customer (11.3 percent) (Amha & Ageba 2006). However, in the retail clothing industry negotiation/haggling dominates price setting. Almost all of the traders interviewed suggested the pricing system for retail clothing is not efficient because of the inconsistency of income and profit. Traders are able to take advantage of some customers who are not savvy about the product quality, and hence, make considerable profit on the sale. However, when dealing with customers who know the product very well, the profit margin may barely cover costs. Furthermore, many traders do not know the true cost of their clothing, and hence, maintain only a loose grasp of their profits. Lack of education is a major contributor to this problem.

**Financial Management**
Short-term and long-term financing is often problematic for firms in Africa. Liquidity is often in short supply and savings inadequate. Firms, therefore, require access to lines of credit, in the short-term, to purchase supplies, and in the long-term, for capital investment (Trulsson 2002). The retail clothing industry in Addis Ababa is no exception. Lack of credit is a major constraint reported by the traders. Bank finance is often beyond the reach of small business owners. The government provides financial assistance, but only to a maximum amount of 5,000 Birr (US$550), and only after a long processing period. On the other hand, government employees moonlighting with private economic activities, were reported as having easy access to government funds. The reports by the respondents in the study align with Amin (2007, p.37), who noted the privileged access to finance of “party-affiliated firms”.

**Market structure**
In the retail clothing industry, the nature of the business does not require a highly educated person. Therefore, anyone with a small amount of capital may open a boutique. In the context of imitation with little innovation, this has the unfortunate consequence of increasing competition, while reducing both market share and profitability of all boutiques. The respondents mentioned the problem of imitation as a major impediment to their future prosperity. For example, they noted that a person may open a new café in a less populated district. If their business becomes successful, a new café will soon open, perhaps next door. The new café forces prices down, but because the owner is most likely uneducated, to a point at which neither café is able to operate profitably. The same applies to most industries, including boutiques.
DISCUSSION AND CONCLUSIONS

The purpose of this study was to explore constraints on small business in Ethiopia. The study, while focused on the retail clothing industry in Addis Ababa, presents a number of findings that are tangibly applicable to the business context of Ethiopia as a whole.

The present study identified the Gurage (goo-rah-gay) people as the ‘minority entrepreneurs’ in Ethiopia who maintain a business advantage because of their acquired traditions based on strong family bonds. The significant role of minority entrepreneurs in African economies has been noted by a number of scholars (see, for example, Ramachandran & Shah 1999). However, although significant, the role has limitations in terms of sustainable economic development, firstly, because it fosters ethnic division, and secondly, because it encourages the continued proliferation of small firms unable to exploit economies of scale (Fosu et al. 2001).

Consistent with previous studies (see, for example, Amin 2007; Hansson 2004; Kellow 2007; UNCTAD 2006; UNCTAD 2007; World Bank 2003), this study found a number of constraints on small business in Ethiopia. These constraints include a lowly educated workforce, rampant corruption of government officials, high inflation, lack of business skills, lack of access to finance, and dysfunctional competitive practices. These issues continue to create an impediment to entrepreneurial activity, and the economic growth of the country.

As Kristiansen et al. (2005, p.367) noted of developing countries, the unemployed are attracted to an industry and location by perceptions of the business success of others. Respondents to the present study suggested that this was certainly the case in Ethiopia. Furthermore, a dearth of information about economic alternatives, as well as lack of education and capital, prohibit individuals from engaging in industries with higher entry barriers, and hence, results in dysfunctional competitive practices. Consequently, in Ethiopia, imitative businesses predominate over innovative entrepreneurial activity, and contribute to the shared poverty of the country. While small business is often touted as the mechanism to raise a country from the “poverty trap” (Sachs 2005, p.19), in reality, poverty produces a vicious circle that envelops both consumers and suppliers, each securing the poverty of the other.

The World Bank (1993) was right in suggesting that the quality of government was the major contributor to economic development by way of the “pragmatic adherence to the fundamentals”. However, the role of government is far more complex than merely adhering to a set of ‘fundamentals’. The internal entrepreneurial activities of a society, and the external economic pressures of global commerce, weave a complex web of fundamentals and enabling conditions that must all be balanced to achieve economic prosperity for citizens. The present study shows that the Ethiopian government has generally performed poorly on the fundamentals, such as inflation, fiscal policies, and investment in human resources; nor has the government performed effectively on the enabling conditions, as evidenced by the rampant corruption of its own officials and the proliferation of dysfunctional competitive practices, all of which severely impede entrepreneurial activities. Until these constraints are resolved, Ethiopia will sadly remain one of the poorest countries in the poorest region of the world.
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GLOBAL ISLAMIC BANKING & FINANCE INDUSTRY: THE WAY FORWARD

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ABSTRACT

The Islamic finance industry has shown steep progression compared to the counter parties, in spite of the challenges and surrounding turbulence. However, more efforts need to be put in place in order to move forward. Strengthening the regional and international integration strategy by means of information, infrastructures and professionals sharing; harmonizing the regulatory and Shariah framework; applying internal best practices while in the mean time bonding cross-border relationships should be advocated simultaneously. In addition, prioritisation on the standard-setting bodies is vital to establish a sound regulatory system, which immensely can promote the growth of the Islamic financial system.

INTRODUCTION

The Islamic financial industry ascends towards prominence in the midst of a highly competitive environment that is constantly subject to change and development. The industry has progressed in leaps and bounds underpinned by essential fundamentals of financial infrastructure that continue to support its sound expansion. This paper highlights four main aspects on the way forward of Islamic finance i.e. (1) the platform for regional and international cooperation and implementation of an integrated strategy for Islamic finance; (2) development of national Islamic financial markets with a regional and global integrated perspective; (3) development of institutional investors and strengthening the legal infrastructure; and last but not least (4) priorities for standard-setting organisations.

1. Platform for Regional and International Cooperation Implementation of an Integration Strategy for Islamic Finance

In order to ensure the sustainability and the soundness of the Islamic banking system, some prerequisite elements have to be adhered to such as (a) transparent corporate
governance practices; (b) well defined financial architecture; (c) enabling legal infrastructure; (d) effective regulatory oversight; and (e) adequate market discipline.

Essentially, considerations of investors’ needs and objectives sought from Islamic instruments are immensely important as these not only forms the basis of any investment decision, but also the capital flows obtained come from investors. In view of this, the following aspects highlighted are key areas that are part of an ever-changing environment:

i) **Infrastructure and Services**: Emphasis placed upon the effectiveness of distribution channels, regular market outlook, liquidity and flexibility of retail clients, minimum investment required and updated real-time performance.

ii) **Competitiveness and Performance**: This is subject to comparison of Islamic funds with the conventional funds, efficient global investment markets, reasonable fees, stable returns and success factors of Islamic funds.

iii) **Product development and marketing**: Diversification, major innovation and product development of equity and venture capital funds, as well as branding and marketing in an international context to be addressed.

iv) **Identifying factors that differentiate one instrument over another**: Focus should be directed towards good track record of fund managers, competitive fees, competent advisory board and the domicile country.

v) **Returns from Islamic instruments vs. conventional products**: Investors are looking for competitive returns from Islamic products, which are comparable to conventional products since Dow Jones Islamic indices provide ready benchmarks to calculate absolute returns.

**Globalization of the Islamic Finance System**

At the international level playing field of the Islamic Finance System, several perspectives are essential. The diversification and sophistication of products and services should be addressed upon by screening the latest market demands. To enable the widening of capabilities and industry coverage, it will be achievable through strong and highly capitalized industry players. Therefore, by strengthening information sharing among global Islamic Finance professionals and human talent management, a highly and qualified pool of talent can be produced. On the effort of harmonizing the regulatory and Shari'ah framework, application of the internal best practices as well as bonding the cross-border relationship should be advocated simultaneously. In addition, an effective supporting system is required for the structure side, whereby it merely does not allow the recording and processing of transactions per se, but covers holistic aspects of the industry.

2. **Development of National Islamic Financial Markets with a Regional and Global Integration Perspective**
The Malaysian Islamic Capital Market is in the evolution stage with rapid growth witnessed since the 1980s. Islamic Private Debt Securities debuted in Malaysia in 1990, which saw the issuance of Shell MDS Sdn. Bhd. valued at RM140 million. Via the Islamic capital market (ICM) guidelines, as well as the ICM Master Plan; the Securities Commission (SC) of Malaysia has strategically outlined prospective areas of development and growth. The ICM has progressed significantly and formed an integral part of a broader capital market landscape in Malaysia.

The framework has been underscored in order to enhance the intermediation process of the ICM, with much focus placed on – market and product development i.e. by introducing innovative, competitive and a wider range of securities; facilitating in introducing a sustainable tax and legal framework; mobilization of Islamic assets held by Islamic institutions through securitization to enhance liquidity and provide new sources of income; increasing the awareness at domestic and international level; and promoting the international harmonization and standard setting to enhance cross-border linkages as well as to accelerate the country as an investment destination.

Prior to the inception of the Islamic debt market, most financing requirements were provided for by the banking sector per se. As a result, there was a limitation of funding sources by banks. However, as the Islamic debt market developed, currently, at its maturity stage, more sources of funding are available from the debt market, hence reducing the dependency on banks for financing purposes. The emergence of structured products such as asset-backed securities to cater for sophisticated financing requirements has led to an increase in superiority to deliver the financing needs of infrastructure projects. This will provide an avenue for more efficient and effective allocation of savings into investments, thus enhancing value and maximizing returns to investors.

For the purpose of fund raising, the ICM is able to play their role, as a wide array of Islamic concepts via various structures are available to cater to the different needs of financing i.e. *Istisna, Ijarah, Musharakah, Mudarabah, Murabaha* etc. Lower cost of financing is achievable due to high demand on Shariah-compliant and ethical investment instruments as well as the availability of a larger pool of investors. Furthermore, alternative modes of financing are available via ICM, with investors having the choice of investing in the long term and *riba* free financing, be it in asset-backed securities; liquid assets; real estate; and non-real estate related assets.

Nevertheless, as an intermediary, the ICM still continues to face the reality of challenges that lower down the phase of movement. The lingering effects of the 1997/98 Asian Financial Crisis has reduced international competitiveness and slowed the recovery process in capital market activities mainly in south-east Asia (Malaysia, Indonesia, and Thailand). The capital markets are in dire need of increasing funding demands of issuers, investment and intermediation needs of consumers, and also employment and knowledge development. In addition, heightened global competition
for business and investment remains a pressing issue. Although tremendous efforts have been made to ensure the success of ICM in Asia, much room for improvement still exists as the ICM is still at its infancy stage compared to the conventional capital markets. Emphasis should be given to the level of compliance with the Shariah Ethical Code of Conducts whereby it is the ultimate divergence between the Islamic and the conventional counter party.

Studies have shown that the Asian ICM market is vibrant with much room for growth. The reason for this includes:

(a) Strong liquidity in the Asian region driven by capital inflows and negative real interest rates. Total foreign exchange reserves of Asian countries estimated at USD2.3 trillion.
(b) Rarity value of Islamic bonds will ensure robust demand.
(c) Demand on high-grade investment papers from regional banks have kept high-grade dollar credits well supported over the past few years.
(d) Growing participation from insurance companies, pension funds and fund managers given continuous liberalisation of foreign exchange administration rules.
(e) Robust and sustainable growth momentum in the Asian region.

The recent geographic distribution of the Islamic Development Bank USD1.0 billion sukuk reflects a move away from its reliance on the Middle East. In fact, for the first time, for a GCC promoted sukuk, Far East investors outstripped investors from the Middle East – Far East 35%, Middle East 32%, Europe 26% and Supranational 7%. Hence, the investment trends have undergone an evolutionary phase whereby many potential new markets have been discovered. Reason being:

(a) Asia – Arab investors awash with liquidity from petrodollars are now shifting their focus to Asia due to the region's revived economic growth.
(b) China – It has the largest population in the world and Muslims constitute 3% of the country’s total population i.e. 38 million compared to Malaysia with 10 million Muslims.
(c) Brunei – It issued its first short-term government sukuk ijarah to pave the way for the development of the Islamic Capital Market although the government did not really need the money.
(d) Indonesia – It has the highest population of Muslims in South East Asia. Before a sukuk is issued the Government will have to amend the law on State Debt Securities or the law on State Treasury. Indonesia’s current capital market is not deep enough to support infrastructure investment needs, as the country would have to access external sources of funding.
(e) Russia – It is proposing conversion to Islamic banks.
(f) USA – It is now allowing Islamic banks to operate in the USA.
(g) Europe – Successful closure of the 1st Islamic Euro-dominated German Aglo-Anhalt Sukuk will be the catalyst for development of sukuk in Europe. (Germany is the 2nd largest Muslim populated country in Europe after France)

3. Development of Institutional Investors and Strengthening the Legal Infrastructure
a. Development of Institutional Investors

Development of institutional investors begins with building investor confidence through market discipline. Three key areas to enhance the development of institutional investors include risk management, corporate governance and financial transparency.

The first aspect is the development of institutional investors through risk management. The Islamic industry is evolving with various elements such as awareness, monitoring, quantification and integration. Awareness is in the form of implicit management, informal and reliance on individuals. The next element is monitoring. In order to monitor, it requires a clear vision and a set of goals to be accomplished, risk parameters, policies and procedures as well as the need for basic hedging to be established. Quantification and integration comprises active management, performance measurement, projections, RORAC (return on risk-adjusted capital) and improved governance.

The second aspect is the development of institutional investors through effective corporate governance. Effective corporate governance is necessary in order to establish the confidence of all shareholders and stakeholders that consists of the government and regulatory environment, investment community, business environment and financial community. To attain effective corporate governance, it involves external and internal audits, measurement and accountability, communication and disclosure.

The third aspect is the development of institutional investors through transparency. Transparency requires presentation that allows users to easily decipher financial and non-financial information; uniformity in regulatory standards across markets and industries to enable comparability. For consistency, it requires the application of accounting standards consistently from period to period and accuracy of information that is the true and fair presentation of the company’s financial position vital to stakeholders. When transparency is established it leads to the robust growth of institutional investors.

Issues Arising between Legal and Shariah Compliance

There are several issues arising between legal and Shariah compliance. Firstly, it is the issues in legal recognition. The legal definition of banking and financial services may not recognise Islamic banking and financial transactions due to their nature as trade and investment – no legal recognition of banking and financial institutions. It is also the issue about application of general law of the country to Islamic financial transactions, which has a possibility of potential conflicts, constraints and adverse legal effects.
Secondly, it is the taxation issue. The nature of Islamic transactions as trade and investments may attract higher taxation, especially when taxation laws do not recognise Islamic banking and financial transactions. This will result in higher costs of operation for Islamic institutions. Furthermore, there is inability to compete on a level playing field with conventional banks.

Thirdly, it is the judicial issue. There is an issue of jurisdiction for the hearing of Islamic banking and financial cases in civil courts. Therefore, decisions are made based on civil / common law and not Shariah law. The court’s decision may not necessarily reflect Islamic legal principles; instead it may even contravene Islamic principles. However, the lack of substantive law on Islamic banking and financial transactions may exacerbate the problem.

**b. Strengthening the Legal Infrastructure: Shariah Compliance Governance**

In order to strengthen the legal infrastructure it requires legal and Shariah compliance governance. Shariah compliance gives emphasis to due diligence and is a requirement in making Shariah related decisions. It also exercises *ijtihad* (fundamentals of Shariah decision-making), that includes: clear understanding of the financial markets, instruments and market behaviour – to make informed decisions; strong efforts in terms of due diligence, methodologically sound, holistic and balanced approach, qualified person – knowledge base, skill, experience and exposure, sincerity and accountability, independence and integrity in decision-making.

Shariah compliance governance involves well-defined operation procedures; processes and systems (e.g. IT) that facilitate correct implementation of the Shariah rulings and decisions. Last but not least, is reporting and accounting policies/models that support Shariah compliant behaviour and governance.

**4. Priorities for Standard-Setting Organisations**

It is very important to establish a sound regulatory framework in order to enhance the performance of the financial institution. Therefore, the roles of the regulators have to be an enabler to support the system. The following are the roles of the regulators:

a) To review the legal and regulatory framework which will allow capital market development thereby providing the basis for sound institutional practices;
b) To offer a change of attitude, i.e. the changes that rationalise the relationship of various economic sectors and the allocation of limited resources will encourage the development of capital markets;

c) To privatise large public sector holdings through which privatisation will release new assets for market dealings and lead to an increase in the financing of activities via the capital market;

d) To develop complementary markets, whereby the development of complementary markets such as the futures market provides alternative sources of investment;

e) To establish a linkage with major markets; e.g. for the listing and eventual trading of shares of major companies and high-rated international bond issues;

f) New developments within markets, in which the changes offer new challenges and exert new pressures on the institutional structure of the financial system;

g) Firm monetary policy, whereby it plays a major role in stabilising capital markets; and

h) Liberalisation, which stimulates competition and speeds up product development.

Standard Setting Organisations and Roles in the Islamic Financial System

Standard setting bodies and other interested international organisations play a crucial role in the promotion and development of the Islamic financial system. Priorities should include (i) promoting good corporate governance and transparency to strengthen market discipline; (ii) consumer education and protection; (iii) supporting research and development in the areas which are critical for financial stability within the Islamic financial system; (iv) conducting forums for regulators and interested stakeholders to discuss and share their experience and expertise; and (v) promoting innovation and diversity in the Islamic financial industry.

The standard setting organizations are as follows:

a) Accounting and Auditing Organization for Islamic Financial Institution (AAOIFI), which prepares accounting, auditing, governance, ethics and Shariah standards for Islamic Financial Institutions. It also organises seminars on key regulatory and Shariah issues and has planned a Certified Islamic Public Accountant programme for accountancy education.

b) Islamic Financial Services Board (IFSB), which serves as an international standard setting body of regulatory and supervisory agencies. It has issued guiding principles on corporate governance risk management and capital adequacy standards for Islamic Financial Institutions

c) International Islamic Financial Market (IIFM), which aims to ensure the continued growth of Islamic banking and finance as a viable alternative to the conventional financial system.

d) Liquidity Management Centre (LMC), which seeks to develop an active secondary market for short-term Shariah compliant treasury products so as to facilitate effective liquidity management.
e) Islamic International Rating Agency (IIRA), which is primarily concerned with rating of sovereigns, entities and issues particularly in Islamic countries to assess *Shariah* compliance.

f) Arbitration and Reconciliation Centre for Islamic Financial Institution, which aims to settle financial and commercial disputes between financial and commercial institutions that have been chosen to be complied with *Shariah* to settle disputes.

g) Bank for International Settlement (BIS), which fosters international monetary and financial cooperation and serves as a bank for central banks. It also has issued guiding principles on corporate governance, risk management and capital adequacy standards for Islamic Financial Institutions.

h) International Accounting Standard Board (IASB), which committed to develop high quality, understandable and enforceable global accounting standards that require transparent and comparable information in general purpose financial statements.

i) International Association of Deposit Insurance (IADI), which aims to contribute to the stability of financial systems by promoting international cooperation and to encourage wide international contact among deposit insurers and other interested parties.

j) General Council of Islamic Banks and Financial Institutions, which focuses on the media and awareness, information and research, policies and strategic planning, and Islamic financial products.

**CONCLUSIONS**

With the growth engine in motion, Islamic banking is expected to expand and will not be confined to just a niche market but is set to be the mainstream banking in the near future. The key growth drivers include continuous product innovation, infrastructure and regulatory improvement.

To compete on a global scale, Malaysian Islamic banks will have to converge in their banking practices. The stage is set for Malaysia to play an active role in promoting regional financial services to meet the financing needs of companies bearing the following features:

a) A variety of effective and innovative financing instruments and structures.

b) Proper infrastructure/ framework in place to support financing via the bond market.

c) Enhanced liquidity - with the increasing number of players there is a larger appetite for quality investments.

d) Increased sophistication of capital market participants to invest in a range of debt securities.
USING CRITICAL INCIDENT TECHNIQUE TO IDENTIFY THE EFFECT OF SERVICESCAPE FAILURE AND THE EFFECTIVENESS OF RECOVERY STRATEGY ON DINING EXPERIENCE

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ABSTRACT

Despite the acknowledged importance of servicescapes, there is a dearth of empirical investigation of servicescape failures and recovery strategies, and how these influence the subsequent behavior of customers. Using critical incident technique, a total of 102 incidents had been gathered by personal interview. The initial result revealed that cleanliness issues were the most common problem occurred in food service industries, followed by design issues, mechanical issues, and social issues. Customers exhibited negative reactions to those failures and led to display of various behaviors. The implemented recoveries were perceived positively and negatively by the customers.

Keywords: servicescape failure; recovery strategy; dining experience; food service establishment; critical incident technique

INTRODUCTION

The physical environment in which services are delivered, which is also known as the ‘servicescape’, has been receiving increasing attention in the services-marketing literature in recent decades. Researchers acknowledge that tangible factors (such as servicescapes) and intangible factors (such as responsiveness, assurance, reliability, and empathy) are complementary in their effects on customers’ evaluations of service quality (Kotler, 1973; Parasuraman et al., 1988). Services are increasingly being integrated with the physical settings in which they are rendered (Shostack, 1977) as research has demonstrated the significant influence of servicescapes on consumers’ behavior (Bittner, 1992; Mehrabian, 1977).

Despite previous studies that emphasize the importance of servicescape in a service firm (Hoffman et al, 2003; Reimer & Kuehn, 2005; Santos, 2002; Wakefield & Blodgett, 1999), and several studies that deal with the aspects of servicescape on behavioral effects, such as color (Bellizzi et al, 1983), background music (Herrington & Capella, 1996; Milliman, 1986), lighting (Areni & Kim, 1994), and other customers getting along (Grove & Fisk, 1997), a comprehensive study of failure to build and maintain the servicescape that leads to servicescape failure and its effects on customers’ behavioral intention remains scarce particularly in food service industry. The failures in designing and maintaining servicescape eventually influence customers’ responses to the place and affect them to behave in the certain ways as customers are predisposed to remember service system failures such as bad smells and unsanitary conditions (Chung & Hoffman, 1998).

Servicescape failures can have a significant impact on customers’ service experiences, and recovery strategies for handling such servicescape failures are therefore very important. In general, a recovery strategy is evaluated positively when it exceeds customers’ expectations but is evaluated negatively when it fails to meet customers’ expectations (McCollough et al., 2000). However, a common mistake made by service managers is misinterpreting customers’ wishes in terms of compensation. For
example, a customer might be seeking financial compensation for expenses (such as medical costs), whereas the service provider might be offering free service vouchers. Such a discrepancy between a customer’s desires and what is being offered can be extremely detrimental to the future relationship between the customer and the service firm if it generates anger, switching behaviors (Keaveney, 1995), and negative word-of-mouth comments (Lewis & McCann, 2004).

The purpose of the present research is to extend the understanding of the impacts of servicescape failures and recovery strategies on dining experience. The paper concludes with several implications for the benefits of food service industries.

**LITERATURE REVIEW**

**Definition and dimensions of servicescapes**

According to Bitner (1992, p. 45), the term ‘servicescape’ refers to “… all of the objective physical factors that can be controlled by the firm to enhance (or constrain) employee and customer actions”. Bitner’s (1992) definition has been widely quoted and accepted in the services-marketing literature (Aubert-Gamet, 1997; Hoffman et al., 2003; Lin, 2004).

Ezeh and Harris (2007, p. 61) enlarged on this definition by incorporating customers’ responses and behaviors when they defined servicescape as “… the physical environment (with or without customer input) housing the service encounter, which elicits internal reactions from customers leading to the display of approach or avoidance behaviors”.

Lin (2004) classified the dimensions of servicescapes into three major groups of ‘cues’:
* visual cues: colour, lighting, space and function, personal artifacts, layout and design;
* auditory cues: music and noise); and
* olfactory cues: scents.

However, the classification of servicescape dimensions varies across different service industries (Ezeh & Harris, 2007). Nevertheless, despite the differences in classifications and groupings, it is generally agreed that the concept of what constitutes a servicescape includes such elements as ambience, artifacts, signs, cleanliness, other patrons’ behaviors, design, layout, and functionality.

**Service encounters and perceptions of service quality**
Customers’ perceptions of service quality are determined by a combination of tangible and intangible elements (Johnston, 1995; Parasuraman et al., 1985). However, few studies have ascertained the specific effect of servicescapes on quality perception. Reimer and Kuehn (2005), who measured service quality (using SERVQUAL) taking into account the role of servicescapes as search qualities, concluded that servicescapes have a dual role in assessments of service quality: (i) providing clues for expected service quality; and (ii) acting as a key factor in influencing customers’ evaluations of other factors (intangibles) in determining perceived service quality. In a similar vein, Wall and Berry (2007), who studied the effects of servicescapes and employee behavior on service quality, found that servicescapes have a significant influence on customers’ expectations of service quality because customers seek for tangible clues to assist them in forming an expectation of service quality.

Service encounters encompass interactions among customers, service employees, servicescapes, and all aspects of service provision (Lockwood, 1994). For the purpose of this research, a service encounter is taken to be the period of time during which a customer interacts with the servicescape. A plethora of research has confirmed that perceptions of servicescapes lead to cognitive, emotional, and physiological responses that influence customer behaviors (Bitner, 1992; Hightower et al., 2002; Ryu & Jang, 2007; Wakefield & Blodgett, 1994; Wakefield & Blodgett, 1996). In particular, Newman (2007) demonstrated that helpful signage and pleasant spatial arrangements influence customers’ behavior by inducing positive moods and positive images of the service organization. This is in accordance with the view of Bitner (1992) that servicescape performs multifaceted roles within service encounters as a facilitator, socializer, and differentiator.

**Servicescape failure as a form of service failure**

Service failure can occur as a consequence of a problem with service delivery, service product, service facility, employee behavior, other customers’ behavior, or a combination of these (Bitner et al., 1990). Primarily, service failures are caused by inefficient staff, slow service, unavailable service, unfriendly staff, product problems, and incorrect billing. However, as shown in Table 1, servicescape failures are prominent among the causes of service failure. These servicescape failures can include foreign objects in a meal, inoperative air-conditioning, machine breakdown, offensive odors, slippery floors, broken furniture, dirty utensils, and crowds. It is apparent that the role of tangibles in service-encounter satisfaction should not be underestimated (Bitner et al., 1990).
TABLE 1: SERVICESCAPE FAILURES

<table>
<thead>
<tr>
<th>Author</th>
<th>Causes of servicescape failures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bitner et al. (1990)</td>
<td>Other patrons’ disruptive behaviours</td>
</tr>
<tr>
<td>Hoffman et al. (1995)</td>
<td>Facility problems (cleanliness issues) accounted for 3.2% of total service failures</td>
</tr>
<tr>
<td>Grove &amp; Fisk (1997)</td>
<td>Other customers had a significant impact upon satisfying and dissatisfying experiences</td>
</tr>
<tr>
<td>Mack et al. (2000)</td>
<td>Food problems (foreign objects), customer preference (seating, music), disruptive others (rude customers, loud children)</td>
</tr>
<tr>
<td>Hoffman et al. (2003)</td>
<td>9% of service failures related to servicescape</td>
</tr>
<tr>
<td>Chung et al. (2004)</td>
<td>Facility/equipment problems</td>
</tr>
<tr>
<td>Dutta et al. (2007)</td>
<td>Hygiene and physical ambience</td>
</tr>
</tbody>
</table>

Antecedents of consumers’ complaint behavior

Servicescape failures lead to dissatisfaction and dissatisfied customers often want to take action in response to encountering a situation that has deviated from what was supposed to happen (Bougie et al., 2003). Complaining is the most common response to such dissatisfaction (Velázquez et al., 2006). However, as Bougie et al. (2003) have demonstrated, dissatisfaction alone is insufficient to provoke complaint behavior unless it is mediated by anger. Customers are more likely to be angry, and therefore more likely to be assertive in complaining, if a servicescape failure causes overt harm. Other factors that influence complaint behavior include: (i) the customer’s pre-existing attitude to complaining; (ii) the importance of the situation; and (iii) the probability of success of the complaint (Velázquez et al., 2006).

Some dissatisfied customers prefer to keep silent, rather than complain. Such customers can resort to other negative behaviors, such as switching providers and/or indulging in negative word-of-mouth comments, which can diminish the image and market profitability of the service firm. In this regard, Bougie et al. (2003) demonstrated that anger partially mediates the relationship between dissatisfaction and switching behavior, and Ritchins (1983) found that the tendency to engage in negative word-of-mouth increased as the severity of the problem associated with dissatisfaction increased.

An empirical study by Hoffman et al. (1995) found out that facility problems and employee behavior were two types of failure that are particularly difficult to recover. However, with regard to failures involving servicescapes, there are certain constraints
to complaining. For example, if a customer considered complaining about the color of a wall or some other fixed aspect of layout or design, what could the service staff be expected to do to satisfy the customer? Rather than complaining about such servicescape ‘failures’, customers are more likely to decide to go elsewhere in future.

Service recovery

The term ‘service recovery’ refers to the actions taken to: (i) rectify the service failure; and (ii) convert the negative attitudes of dissatisfied customers to positive attitudes with a view to customer retention (Miller et al., 2000). The development of an effective recovery strategy is essential to retaining customers, preventing negative word-of-mouth communication, and generating trust and loyalty. However, the blind execution of a recovery strategy without adequate assessment of the effectiveness of that strategy is mere trial and error.

Hoffman and Chung (1999) found that action-oriented responses are perceived by customers to be more effective than mere apologies. However, the process of recovery is more difficult when customers perceive the failures to be serious (Mattila, 1999) or if they feel offended (Mattila, 2001). Indeed, dissatisfaction can remain after a more severe failure, regardless of whether the recovery has been successful (Weun et al., 2004).

Mishandling customers’ complaints about service failures can dramatically impair the relationship between the customer and the service organization. The effectiveness of a recovery is usually assessed in terms of the customer’s behavioral response—such as customers’ repatronage intention and loyalty. Miller et al. (2000) proposed a service-recovery framework of three phases: (i) a pre-recovery phase (customers’ expectations of recovery when failure occurs); (ii) immediate recovery phase (service staff aware of the failure and execute recovery); and (iii) follow-up recovery phase (fairness of compensation perceived by customers). According to the so-called ‘disconfirmation model’, customers have greater satisfaction when performance exceeds or meets expectation, and greater dissatisfaction when expectation exceeds performance. Such a model has been used by McCollough et al. (2000) to explain customers’ satisfaction after recovery by comparing initial disconfirmation (the difference between failure expectation and service performance) and recovery disconfirmation (the difference between recovery expectation and recovery performance). According to McCollough et al. (2000), customers’ satisfaction is lower after service failures and recovery (even given high recovery performance) than is the case in error-free service. However, Hess et al. (2003) found that customers with higher expectations of a continuing relationship with a service provider have lower service-recovery expectations after a service failure, are more likely to ascribe that failure to accidental causes, and have greater satisfaction with service performance after recovery. Maintaining a positive relationship with the customer is thus more important than meeting recovery expectation (Hedrick et al., 2007).
The so-called ‘theory of fairness’ suggests that the outcome of an exchange is judged by assessing the resources expended against the rewards received. Several authors have suggested that customers are likely to use the theory of fairness to evaluate service-recovery efforts and post-recovery satisfaction (Kau & Loh, 2006; Mattila, 2001; Palmer et al., 2000; Smith et al., 1999). Three concepts of justice are utilized in the theory of fairness: (i) distributive justice (perceived fairness of the specific outcome of the recovery effort); (ii) procedural justice (perceived fairness of the procedure used in arriving at the outcome); and (iii) interactional justice (perceived fairness of the inter-personal behavior in delivering the outcome). Applying this theory to service recovery, customers’ evaluations of recovery effectiveness are based on comparisons of the costs of service failures to the benefits offered by the recovery strategies (Hoffman & Chung, 1999). Moreover, customers’ evaluations of the degree of failure will be moderated by their perceptions of the notions of distributive justice and interactional justice associated with the recovery effort (Mattila, 2001). The outcomes of the recovery, the procedures of the decision-making, and the inter-personal behavior of service employees must be in accordance with perceived justice if customers are to be satisfied with the service recovery (Kau & Loh, 2006).

Boshoff (1997) contended that a higher level of compensation positively enhances a customer’s level of satisfaction with service recovery, regardless of who performs the service recovery. However, Wirtz and Mattilla (2004) found that greater compensation is effective in enhancing satisfaction only in circumstances of delayed recovery with an apology or immediate recovery without an apology. Besides, customers perceive greater justice and have higher overall post-failure satisfaction when given an opportunity to voice their recovery expectations (Karande et al., 2007). In addition, a well-handled service-recovery process has a superior impact on customers’ satisfaction and behavioral intentions than does customers’ satisfaction with original service outcomes (Spreng et al., 1995). In other words, the quality of customer-service employee encounters can have a greater impact on how customers feel about service firms than the quality of customer-environment encounters (Kivelä & Chu, 2001). In a similar vein, McColl-Kennedy and Sparks (2003) demonstrated that customers’ emotions are likely to be moderated by recovery efforts through service employees’ intervention. For example, customers tend to experience negative emotions (such as anger and dissatisfaction) when service employees do not appear to put effort into recovery attempts (McColl-Kennedy & Sparks, 2003).

**METHODOLOGY**

The Critical Incident Technique (CIT) (Flanagan, 1954) has been used in this research to examine customers’ dining experience associated with servicescape failures and effectiveness of recovery strategies in food service establishments. The CIT is a fruitful approach to filling the void of the previous research in this regard because it has the ability to describe real servicescape failure phenomena and recovery effectiveness. It is a pragmatic method that reflects the way in which service customers think, without diminishing the reliability of the information (Viney, 1983). Research conducted by Andersson and Nilsson (1964) on the reliability and validity aspects of the CIT directed them to conclude that the information collected by this
technique is both reliable and valid. The CIT methodology differs from other qualitative methods by being focused on the specific incidents that are remembered by customers and by providing practical solutions (in the customers’ own words) to the problems that confront them. Theoretically, critical incidents involve the disconfirmation of expectations (Hoffman & Chung, 1999). For this research, the critical incident is defined as “an interaction between customer and food service establishment whereby the customer encounters dissatisfying interaction with the physical environment and evaluates the effectiveness of the recovery strategy taken by the food service provider to rectify the failure”. Hence, only those incidents that customers found memorable were included.

Data collection in CIT is conducted by personal interview, self-administered survey, and/or focus group discussion (Flanagan, 1954). Of these, personal interview is suitable for collecting data about servicescape failures because there is a need to explore the issue comprehensively and explore the intensity of customer reaction and subsequent behavior. Besides, the method is considered to be important because it provides a glimpse into the seriousness of servicescape failures and how effective the recovery strategies are. The initial analysis was done on 102 incidents. After the initial categories were developed, an additional 100 incidents will be collected and analyzed to establish the validity of the initial coding classification system. When no new theme emerged, data collection ended. This is consistent with Flanagan’s (1954) suggestion which the number of incidents gathered is satisfactory when the analysis of approximately 100 new incidents disclose no more than two or three new themes. The initial 102 incidents were transcribed verbatim and content analyzed to uncover the categories of the phenomenon of research. Two researchers read, sorted, reread, and recombined the incidents until consensus was achieved on category labels and the assignment of each incident to relevant category. Since there have been literally various attempts to conceptualize servicescape dimensions and types of recovery strategy, with divergent results and confusing terminology, Hoffman et al.’s (2003) findings was referred for categorizing the incidents in this research. The data were constantly compared to the relevant literature to develop codes and interpretations.

RESULTS AND DISCUSSION

Characteristics of the sample

Eighty two informants were interviewed during the period of data collection. The initial analysis and classification indicated that 28 informants were male (34.1%) and 54 respondents were female (65.9%). A vast majority of the informants were Chinese (61.0%), and followed by Malay (30.5%) and Indian (8.5%). The age ranged of the informants from 16 to 54. The profession profile of the informants revealed that 28.0% of the informants were students, 24.4% were in academic occupations, 13.4% were in clerical and administrative occupations, 13.4% were in sales and marketing occupations, 9.8% were in higher management and executive occupations, 6.1% were in engineering and technology occupations, 2.4% were in consultancy occupations, 1.2% were in research occupation, and 1.2% were in logistics occupation.
Information of patronization

In a number of cases there were multiple incidents per interview, resulting in a total of 102 incidents classifiable incidents across the 82 personal interviews. Those incidents happened between the year 1988 and year 2008. Majority of informants had better recall of servicescape incidents that had occurred within the past one to twelve months, with a total of 64.7% at the time of the interviews. The next incident time interval was more than twelve months, with totals of 31.4%. It is quite interesting to note that informants could recall the critical incidents in detail even if it happened more than ten years, which supports Kivela and Chu’s (2001) findings where customers were more likely to remember and recall negative dining experiences. Only four informants could not remember the year where the incident had occurred. Of the reported critical incidents, 57 were from usual Malay/Chinese/Western/Japanese restaurants, 13 from food courts, 9 from fast food restaurants, 7 from college/hostel/school cafeterias, 5 from hotel restaurants, 6 from food stalls, 3 from fine dining restaurants, and 2 from hotel cafeterias. There were 76 (74.5%) of the reported incidents happened when informants had made repatronization to that particular outlet, while 26 (25.5%) incidents happened when the informants were a new customer.

Incident classification system – servicescape failures

The initial sorting of the incidents resulted in four major groups of servicescape failure as shown in Table 2. A total of 14 specific types of servicescape failures were identified within these four major types of servicescape failures. The category classification revealed that in most circumstances, cleanliness issues were the greatest problems to food service industries, with total of 80.4%. The second issue of servicescape failure that was concern to food service industries was design issue, with total of 9.8%. The third grouping of servicescape failure was related to mechanical issue, with total of 4.9%. Lastly, the final grouping of servicescape failure was related to social issue, with total of 4.9%.

<table>
<thead>
<tr>
<th>TABLE 2: CATEGORY CLASSIFICATION BY TYPE OF SERVICESCAPE FAILURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Group 1: Cleanliness issues</td>
</tr>
<tr>
<td>Foreign object in food/beverage (insect-related; human-related; non human related)</td>
</tr>
<tr>
<td>Dirty cutlery (greasy)</td>
</tr>
<tr>
<td>Dirty surroundings (animals; insects; dirt)</td>
</tr>
<tr>
<td>Dirty seating condition (cutlery left by previous customer)</td>
</tr>
<tr>
<td>Bad odor (toilet, drain)</td>
</tr>
<tr>
<td>Sub-total Group 1</td>
</tr>
<tr>
<td>Group 2: Design issues</td>
</tr>
</tbody>
</table>
The interview results revealed that informants displayed dissatisfying interactions with the servicescapes. Dissatisfactory servicescape incidents represent negative and unacceptable servicescape that detract mood of eating. Refer the following four major issues with reflecting on the dissatisfactory servicescape experiences:

**Group 1: Cleanliness issues**

Incidents in this category reflect foreign objects in food and beverage, dirty cutleries, dirty eating surroundings, dirty seating conditions, and bad odor. Customers display negative reactions to those failures such as disappointing, losing appetite, and worrying for health. By referring to the reported number of servicescape failures, cleanliness problems are viewed as a critical issue and affected customer evaluation of the dining experience as well as led to the exhibition of dissatisfaction, as these three informants revealed the dissatisfactory feelings:

I realized that my children were eating with the spoon and fork covered with a layer of black oily substance on the surface. I was very disappointed. In fact, I was more worried if my children got food poisoning after consuming the food with the dirty spoon and fork. (Chinese Female, 50 years old)

It really made me disappointed because all this while I was consuming at that particular outlet. When I saw the dirty condition of the kitchen, I was very disappointed and angry because I would expect the environment was as good as the food taste. Since that time, I never went back to that outlet anymore and I also told my friends don’t go to that restaurant! (Malay Male, 27 years old)
The bad odor emitted from the drain really made me lost my appetite. How was I supposed to eat with that odor as if like I was sitting in a toilet? I felt uncomfortable to have my meal with that bad odor. (Malay Female, 48 years old)

**Group 2: Design issues**
This category involves design relating to poor seating design, dim lighting, inaccurate menu list, and improper arrangement of signboard. Inappropriate arrangement of those resulted in dissatisfactory responses such as uncomfortable seating condition. Design factors suppose to promote pleasure in the dining experience and facilitate the behavior of customers. Customers evaluate design factors negatively when these hindered the service activity. For example, informants reported the following when reflecting on this experience:

The space of the restaurant was narrow and crowded. My chair was frequently hit by somebody while sitting. Suddenly I was hit by a customer and that made me unable to continue my meal. (Chinese Female, 28 years old)

The signboard used for displaying menu suddenly fall down. Although no physical hurt, it shocked and scared me. It could imagine what would happen if the falling signboard hit somebody in the restaurant. (Chinese Female, 32 years old)

**Group 3: Mechanical issues**
This category includes problems with machinery and air-conditional. Customers exhibit dissatisfactory responses due to the inconvenience and uncomfortable reasons. Informants responded to the dissatisfactory as following:

Although the restaurant encountered water dispenser breakdown, they should have back up to overcome the incident. What the staff did was replaced with other type of beverage which I was not very satisfied. (Chinese Male, 19 years old)

I felt hot and uncomfortable with that poor ventilation. The air condition was not suitable for eating. It was unhygienic. (Chinese Female, 24 years old)

**Group 4: Social issues**
This category includes incidents in which staff’s behavior and appearance as well as other patron’s behavior is viewed negatively. The performance of these social issues
within the servicescape served to inhibit the dining experience, thereby leading to display of dissatisfactory responses. For example, two informants noted that:

The staff was sweeping the floor while customers were having their meals in the restaurant. The dirt polluted the air. It was not a hygienic practice. (Chinese Male, 36 years old)

That high class restaurant was particularly for quite and nice dining environment. But when I sat there, it was too noisy with a group of customers making noise; the situation was nothing different with night market. (Indian Female, 21 years old)

**Incident classification system – recovery strategies**

The ability of food service providers to respond and handle the servicescape failures could result in the recovery strategies being remembered as satisfactory and dissatisfactory recoveries. These recovery strategies represent truly expected, unexpected, requested, or unrequested that either enhance or detract the dining experience. Table 3 provides an overview of the frequency for satisfied and dissatisfied recovery strategies identified within each category of servicescape failure. The recovery strategies identified through the sorting process fall into four major categories:

- compensatory responses (free of charge; discount; free coupon/ancillary product; cash compensation)
- corrective responses (total replacement of food/cutlery; correction)
- empathetic responses (apology; explanation; concerned; promised)
- no recovery (no action taken)

As indicated in the Table 3, the empathetic responses and corrective responses were the most frequently implemented strategies by food service providers. Within the cleanliness category, empathetic responses were the most frequently implemented strategy (32.7%). Of these, 33.8% reported satisfactory and 31.5% reported dissatisfactory. Similarly, empathetic responses were the most regularly executed recovery in rectifying design failures (4.8%). Informants reported satisfactory and dissatisfactory of the recovery, with 5.4% and 4.1% respectively. Again, empathetic responses were the most frequently used to alleviate dissatisfaction within mechanical category (4.1%), with 6.8% perceived satisfactory and 1.4% perceived dissatisfaction. Finally, within the social category, empathetic responses were also the most frequently implemented to ease the anger (2.0%). Of these, 2.7% reported satisfactory and 1.4% reported dissatisfaction. Overall, a substantial proportion of satisfying and dissatisfying recoveries were reported, with 50.3% and 49.7% respectively.

**TABLE 3: CATEGORY CLASSIFICATION BY TYPE OF RECOVERY STRATEGY**

<table>
<thead>
<tr>
<th>Category</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
</tbody>
</table>

112
Group 1: Cleanliness issues

<table>
<thead>
<tr>
<th>Response Type</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensatory responses</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Corrective responses</td>
<td>20</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>27</td>
</tr>
<tr>
<td>Empathetic responses</td>
<td>25</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>36</td>
</tr>
<tr>
<td>No recovery</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Group 2: Design issues

<table>
<thead>
<tr>
<th>Response Type</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensatory responses</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Corrective responses</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Empathetic responses</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>No recovery</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Group 3: Mechanical issues

<table>
<thead>
<tr>
<th>Response Type</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensatory responses</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Corrective responses</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Empathetic responses</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>No recovery</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Group 4: Social issues

<table>
<thead>
<tr>
<th>Response Type</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensatory responses</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Corrective responses</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Empathetic responses</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>No recovery</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Column Total

|                  | 74     | 50.3   | 73     | 49.7   | 147   | 100.0 |

Note: Most informants described more than one recovery per incident; hence the total of recoveries does not equal the number of incidents.

Compensatory responses

Compensatory responses involved recovery strategies in which the customers are compensated in some form. Satisfactory recoveries result when food service providers being attentive and anticipating needs without delay. For example, one informant noted:

I had good impression because the manager came to me in a short time to settle the problem. He tried to pull back my confidence by giving me free coupons and I definitely will make a revisit to that outlet. (Chinese Female, 23 years old)

Dissatisfied recoveries occur when food service providers poorly identified customers’ anticipating of the recovery, as reflected by one informant:

The manager offered me free voucher but I didn’t accept the voucher because I believe that it was not the type of recovery that I wanted. What I wanted was medical fee compensation and an apology letter from the manager. (Chinese Male, 29 years old)

Corrective responses

Corrective responses included replacement and correction strategies. Satisfactory recoveries are associated with food service providers that attentive to rectify the failures and attempt to adapt to the customers’ preference. For example, two informants said:
Overall I would say I was very satisfied because of the prompt response of the staff by checking on my food and replacing another food. If they took a longer time to response, I would definitely dissatisfy. (Malay Male, 26 years old)

Although that time was crowded with other customers, the staff managed to get a better place for us, instead of sitting near to the toilet. (Chinese Female, 24 years old)

Dissatisfied recoveries occur when food service providers demonstrate impersonally correction and not caring about customers’ anticipating, as one informant responded:

Although the waitress had replaced the food for me, I was still not satisfied because she never apologized and said anything! They have to show concern on my case and say sorry to me, I insisted that! They need to know what they need to do, is not that I ask them to do something only they do it. (Chinese Female, 24 years old)

*Empathetic responses*

Empathetic responses refer to situations in which the food service providers imply ‘mouth approach’ to acknowledge customers’ complaint besides offer other type of tangible recovery. Satisfactory recoveries are reported by a combination of action-oriented responses (either compensatory response or corrective response) with sincerely apologize, explanation, or promised. For example, a sincere apology was responded through the words of service provider:

I would say that the manager was very experience in handling failure. Besides compensated me with medical fees, he apologized sincerely and I am impressed with the last word he told me – please come back to us. (Chinese Male, 50 years old)

Reports of dissatisfactory recoveries refer to impolite and unacceptable explanation of food service providers that infuriate customers who are expecting something to be done on that, as these dissatisfactory responses reveal:

I was very dissatisfied and angry with the staff! The staff did not believe what I told him about the cockroach in food. He apologized but impolitely. I felt that he did not sincerely apologize and he said that just to make me left the canteen instantly. (Chinese Female, 30 years old)

I had bad impression of this cafeteria although it was located in a grand hotel because the waitress was too rude and gave me a nonsense explanation. She was just wasting my time. (Chinese Female, 29 years old)

*No recovery*

No recovery means either food service provider fails to resolve the failure or fails to acknowledge the customers’ perceived seriousness of the situation. Customers
reported food service providers to be seemingly lacking the initiative to recover from servicescape failures or else no special attention to the complaints, in other words, nothing has been done to alleviate dissatisfaction. For example:

I told the manager about the noise made from other customers. He verbally said ok and would settle it but in fact he didn’t take any action. If the manager took any initiative to talk to those customers, I would think that he was doing something but in fact he didn’t do anything. That’s why I was disappointed! (Indian Female, 21 years old)

I was totally dissatisfied because there was no recovery to make me felt better! I was complaining but the manager never says or does anything that possibly would pull me back to that outlet! Totally dissatisfied! (Chinese Male, 28 years old)

**IMPLICATIONS**

Several implications in this particular area flow from this research. Firstly, this research is hoped to fill out the gap in servicescape and associated recovery area. The research has implications for food service managers and practitioners who are seeking to improve the tangible aspects in their organizations. The data from this research concludes that cleanliness problems occurred most often, thus special attention should be given to these issues. Prompt actions and special attention to the failure only lighten dissatisfaction temporarily. Hence, an appropriate planning and program should be implemented to prevent from servicescape failure besides executing effective recovery strategy after the failure which is the key in retaining customer. The finding of this research suggests that the ability of a food service provider to make a proper response is largely depend on a function of the food service provider’ knowledge and control. In some cases, the responses are not tailored to the incidents, thus resulting in failure to meet recovery expectation. In fact, a scrutiny of the failure and ensuring customer satisfaction serve as a starting point for an improvement to an organization, for the reason that while experiencing service, a customer can create new meanings and unusual functions which could raise opportunities to improve servicescape (Aubert-Gamet, 1997; McCollough et al., 2000). Perhaps, a consistency of improving and maintaining the quality of servicescape seems significant in preventing serious failure emerges. Noted that no recovery stands a portion in the types of recovery, therefore, it is important for managers to uncover the factors or barriers in implementing the recovery so that effective recovery could be executed.
CONCLUSIONS

The importance of servicescape in food service organizations should not be neglected as it provides the image of the organization to customers before the interaction between customers and service providers occurred (Bitner, 1992; Lin, 2004). Servicescape failures can significantly diminish perceptions of service performance and evoke feelings of dissatisfaction, thus leading to complaint behaviour. An understanding of how to handle complaints and recover from failures is a great challenge for service managers. As Bejou and Palmer (1998, p. 21) observed: “… just because they forgive you does not mean they will not remember the failure”. The purpose of this research was to unearth the effects of servicescape failures and the effectiveness of recovery strategies on dining experience. The focus was on food service establishments for the reason that customers tend to have a high frequency of contact with food service industries (Hoffman & Chung, 1999). By using critical incident technique to recall the servicescape incidents, the most infuriating servicescape failures could be unearth and also the effectiveness of recoveries could be understand better.

The classification system of servicescape failure provides insight into several issues. Obviously, cleanliness problems are the prime issue in food service industries. Within this category, foreign objects in food is reported as the most frequently complained issue, besides the dirty cutleries and surroundings as well as bad odor. The second category of servicescape failure type is identified as design problems (such as poor seating design, dim lighting, and improper arrangement of signboard). The third common type of servicescape failure is classified into the category of mechanical problems (such as machinery breakdown and air-conditional malfunction). Another type of servicescape failure is determined as social problems (such as behavior and appearance of staff and other patron). Customers exhibit negative responses to those failures such as disappointing, angry, disrupting, uncomfortable, and worrying. In addition, the mood of eating is being distracted by such conditions. Perhaps the most intriguing finding from this research is few customers are likely to remember negative dining experience and able to recall although it has occurred more than ten years ago.

The process of classifying the recovery strategies associated with each critical incident within each servicescape failure category resulted in identifying four categories of recovery strategies: empathetic responses, corrective responses, compensated responses, and no recovery. Of these four, empathetic responses and corrective responses are the most frequently implemented strategies by food service providers. The proportion of satisfying and dissatisfying recoveries was slightly different with 0.6% for all the categories. Importantly, the actions that food service providers take in response to servicescape failures should be viewed as a means to reestablish and confirm relationship with customers. Understanding the intensity of customers’ reaction to recoveries will ultimately lead to a deeper thoughtful of their behavior as they seek satisfaction of the expected recoveries.
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DEVELOPMENT OF SERVICE QUALITY DIMENSIONS IN MALAYSIA – THE CASE OF A MULTICULTURAL SOCIETY

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ABSTRACT

Service quality is now recognized as an integral component of a firm’s customer satisfaction program. Therefore, it is important to understand how consumers perceive the quality of services, as well as how these perceptions are translated into customer satisfaction and behavioral intentions. Since delivering high service quality is the cornerstone of marketing strategy, the marketer must have the means to measure it. Despite the depletion of service quality studies in literature, the SERVQUAL dimensions have failed to receive validation outside the Western market. This study attempted to examine the service quality dimensions those are of concern in the hospitality and tourism industry in Malaysia. The results show that different dimensions of service quality emerged.

Keywords: Service quality, customer satisfaction, wealth generation, quality of living
INTRODUCTION

The Malaysian tourism industry, with food and lodging as the two major components, alone is the major foreign exchange earners in the services sector second only to its manufacturing industry. Malaysia is among the top three countries for the most number of tourist arrivals among the 53 commonwealth countries according to the World Tourism Organization. According to the Malaysian Tourism Board statistics (2008), Malaysia has recorded a total of 12,891,202 tourist arrivals from January to July 2008 compared to 12,404,377 tourist arrivals for the same period in 2007, representing an increase of 3.9%. With positive market conditions, incoming tourist receipts are expected to continue to grow by 8 to 10% annually. The travel and tourism industry will continue to be a major contributor to Malaysian GDP, with tourist receipts exceeding RM52 billion in 2010.

In light of the imperative role of tourism industry to the Malaysian economy, enhancing service quality to tourists is crucial to Malaysia’s success. “Service quality enhances to succeed” was the message at the recent Malaysian Tourist Guides Conference 2008. In view of the significant contribution of tourism industry to the Malaysian economy and the competition within the region for tourist arrivals has intensified, providing memorable and satisfactory experiences to tourists becomes unprecedented important.

As a critical measure of organizational performance, service quality continues to forefront of service marketing literature (Jensen and Markland, 1996) and also compels the attention of practitioners and academics (Lassar et al., 2000; Yavas and Yasin, 2001). Service quality is also a critical prerequisite for establishing and sustaining satisfying relationships with valued customers (Yavas and Benkenstein, 2007). Indeed, delivery of high service quality to customers results in a number of positive outcomes ranging from achieve competitive advantage to build customer loyalty (Palmer and Cole, 1995; Zahorik and Rust, 1992). Therefore, overall upgrading of service quality in the hospitality and tourism industry not only will benefit the country economically, but also will improve the quality of life of the Malaysians, building a nation that is well-mannered – Berbudi Bahasa.

The existing service encounter conceptualizing such as SERVQUAL (Parasuraman et al. 1985; 1988) that describe the dimensions customers encompasses tangible, reliable, assuring, empathetic, and responsive qualities has great impact in the domain of service quality measurement. However, numerous studies have failed to identify the reported five underlying dimensions (e.g. Reidenbach and Sandifer-Smallwood, 1990; Finn and Lamb, 1991; Babakus and Boller, 1992; Bouman and van der Wiele, 1992; Headley and Miller, 1993; Saleh and Ryan, 1992; Vandamme and Leunis, 1993). In fact, Carman (1990) found a larger number of dimensions and highlighted the multifaceted nature of some services. Peter et al. (1993) also mentioned that the number of dimensions of service quality is very much influenced by the context under evaluation and the methods of evaluation.

Apart from that, many researchers have criticized that SERVQUAL does not fully capture the unique aspects of non-Western cultures. Its replication has been proved to be successful in European markets (Coulthard, 2004). These replications, however,
only represent the usefulness of SERVQUAL in a greater Western culture because European culture is probably not considered very different from North American culture (Winsted, 1997; Imrie et al., 2000; Imrie et al., 2002; and Raajpoot, 2004;) or perhaps the service quality has reached certain level. They found that consumers in different cultures not only evaluated service encounter quality along the five dimensions captured by SERVQUAL but also dimensions not captured by SERVQUAL. This was further supported when Raajpoot (2004) developed PARKSERV scale in a non-Western context, Pakistan by adding the new dimensions of sincerity, formality, and personalization. In addition, earlier findings that reported in Donthu and Yoo (1998), Mattila (1999), and Furrer, Liu, and Sudharshan (2000) showed that customers in different cultures tend to assign different meanings to existing SERVQUAL dimensions. In sum, the SERVQUAL dimensions have failed to receive validation outside the Western market (Akan 1995; and Lam 1995, 1997).

The service quality studies in Malaysia are still under research. Only a minimal number of research studies related to service quality in the service industry in the Malaysian context can be found throughout the review of literature. Since the dimensions that suggested in SERVQUAL fail to access the service quality in non-Western context, particularly in a multicultural society, and also new dimensions may be emerged, it is necessary to examine the service quality dimensions those are of concern in the hospitality and tourism industry in Malaysia in order to catalyze the growth.

**LITERATURE REVIEW**

**Service Quality**

Service quality has been an elusive concept that has aroused considerable interest and debate in the research literature primarily due to the nature of service which is intangible, variable, perishable, and inseparable (Parasuman et al., 1985; 1988). The service literature also reveals the difficulties in both defining it and conceptualizing or operationalizing with no overall consensus on perceived service quality (Cronin and Taylor, 1992; Rust and Oliver, 1994; Wisniewski, 2001).

The most commonly used definition is the extent to which a service meets customers’ needs or expectations (Lewis and Mitchell, 1990; Asubonteng et al., 1996; Wisniewski and Donnelly, 1996). On the other hand, Parasuraman et al. (1985) defined service quality as the difference between customer expectations of service and perceived service. According to them, if expectations are lower than performance, then the perceived quality is greater than satisfactory and hence customer satisfaction occurs. In this paper, service quality can be defined as the difference between customers’ expectations for service performance prior to the service encounter and their perceptions of the service received (Asubonteng et al., 1996).

**Service Quality Dimensions**

Early conceptualizations (e.g., Gronroos 1982, 1984; Parasuraman et al., 1985) showed that perceived service quality is based on the disconfirmation paradigm where
service quality is a comparison between consumers’ expectations and their perceptions of the service they actually received. In addition to adapting the disconfirmation paradigm to the measurement of service quality, Gronroos (1984) developed The Nordic Model. He identified two service quality dimensions. The first dimension was technical quality that refers to the outcome of the service performance or what the customer receives in the service encounter. The second dimension was functional quality which is the subjective perception of how the service is delivered.

Meanwhile, Parasuraman et al. (1985) also used this disconfirmation paradigm as the basis to develop the five dimensions of service experience. Of these five dimensions, reliability is the ability to perform the promised service dependably and accurately. Responsiveness is the willingness to help customers and provide prompt service. Assurance is the knowledge and courtesy of employees and their ability to convey trust and confidence. Empathy is the caring, individualized attention provided to the customer; and tangibles are the appearance of physical facilities, equipment, personnel, and communication materials. Parasuraman et al. (1988) argued that, regardless of the types of service, consumers evaluate service quality using similar criteria, which can be grouped into the forth mentioned dimensions, also known as SERVQUAL scale.

Despite the wide usage by academician and practitioners in various industries, across different countries, a number of studies have questioned the conceptual and operational base of the SERVQUAL model (Babakus and Boller, 1992; Carman, 1990; and Teas, 1994). More specifically, these studies have failed to confirm the five dimensions structure across different industries. For example, a study conducted in the hospitality industry reported five dimensions of service quality, and these differed from those in SERVQUAL (Saleh and Ryan, 1991). These findings suggest that further customization of the scale for the hospitality industry is necessary.

Build on the previous model by Gronroos (1982) and Bitner (1992), Rust and Oliver (1994) proposed the Three-Component Model. In this model, they suggested that service quality consists of three distinct parts: service product, service delivery and service environment. Service product refers to the outcome and the consumer’s perception of the service. Service delivery is the consumption process and any relevant events that occur during the service act. The service environment is the internal and external atmosphere. Service environment is important because it is viewed as an integral role in consumer service perception development (Bitner, 1992). Its focus was the relationships that exist between service quality, service value and satisfaction.

Dabholkar et al. (1996) proposed a hierarchical model of retail service quality, the Retail Service Quality Scale (RSQS). This model was created with specific interest in retail service quality. The researchers argued that SERVQUAL has not been successfully adapted to and validated for the retail store environment. They also suggested that the dimensionality of service quality in a retail setting may not be similar to that of service quality in pure service industries. The RSQS is a multilevel model, which retail service quality is viewed as a higher-order factor that is defined by two additional levels of attributes (dimensions level and subdimension level). The instrument includes five primary dimensions that are physical aspects, reliability, personal interaction, problem solving and policy; and six subdimensions: appearance,
convenience, promises, doing it right, inspiring confidence, and courteous. The outcome of the research indicates that service quality needs to be assessed at several levels, with the main and sub-dimensions.

The most recent conceptualization of service quality is the hierarchical approach model by Brady and Cronin (2001). They integrated previous conceptualizations such as Rust and Oliver’s model and Dabholkar’s et al. (1996) to develop a hierarchical and multidimensional model of perceived service quality. In their model, SERVQUAL factors were used as modifiers of the model’s sub-dimensions. They described a third-order factor model, where quality service is explained in terms of three primary dimensions: interaction quality, physical environment quality and outcome quality. Each of these dimensions consists of the three corresponding subdimensions: attitude, behavior, and experience (interaction quality); ambient conditions, design, and social factors (physical environment quality); waiting time, tangibles and valence (outcome quality). This approach is believed to better explain the complexity of human perceptions than the conceptualizations currently offered in the literature (Dabholkar et al., 1996; Brady, 1997) as such allows us to know what defines service quality perceptions, how service quality perceptions are formed, and how important where the service experience takes place.

Cultural Dimensions

Hosftede (1980) illustrated that people’s core cultural values are much more highly persistent than their secondary beliefs. For example, Asian societies still conform to traditional values despite modernization and trends toward Western values (Hsu, 1985; Tan and McCullogh, 1985). Kugler (1998) also stated that Asian consumers hold different cultural core values than Western counterparts and to date, the Asian cultural context has remained strong. Meanwhile, Zeithmal et al. (1993) had shown that some determinants of customer expectations such as physical, social, and psychological are strongly influenced by the social and cultural environment of customers. Other researches also argued that neither the cultures in the West nor the East are totally homogenous as there are intra-sociocultural dynamics at wok. (Khaleefa et al., 1996; Rudowicz, 2003).

In collectivist societies, people typically consider group as the fundamental component of society instead of individual. They value harmony and avoid confrontation at all costs. Given their emphasis on relationship maintenance and harmony, East-Asian consumers are highly sensitive to criticism and interpersonal treatment during service encounters. In addition, the concept of ‘face’ or ‘public reputation’ is a very important value among the East Asians in the context of personal relationship and social exchange. Face refers to the idea of gaining respect, social and professional position, reputation, and self-image. The granting of 'face' have been highly valued and widely practiced in Asian society as it becomes the dominant force in shaping interaction patterns and actions (Tan, 1986). In terms of cultural collectivism, losing face in group is worse than any other punishment in Asian society.

Articles by Winsted (1997), Donthu and Yoo (1998), and Mattila (1999) revealed the links between cultural dimensions and service quality dimensions by studying a subset of possible relationships. An example of this influence, shown by Mattila (1999), is
that customers with Western cultural backgrounds are more likely to rely on the
tangible cues from the physical environment to evaluate service quality than their
Asian counterparts. Heskett et al. (1990) also supported that cultural factors would
provide valuable input for international market segmentation and resource allocation
across the service quality dimensions. If the relative importance of the service quality
dimensions to customers is likely to vary depending on their culture, resource
allocation on different dimensions of service quality should be contingent on the
importance attached to them by customers. Thus, understanding the relationship
between culture and perceived service quality may provide useful insights for how
firms should allocate resources in different cultural groups.

The Link between Cultural Dimensions and Service Quality

There have been studies relating culture to service quality (Anderson and Fornell,
1994; and Collier, 1994) as well as the influence of cultural dimensions influence on
satisfaction and perceived service quality (Winsted, 1997; Donthu and Yoo, 1998;
Mattila, 1999). Winsted (1997) examined how consumers in the United States and
Japan evaluate service encounters. She developed behavioral-based service encounter
dimensions for the two countries and identified significant cross-cultural differences
on these dimensions. The dimensions identified in the United States are civility,
personalization, remembering, conversation, congeniality, delivery, and authenticity.
Those identified in Japan are civility, personalization, conversation, concern, and
formality. Using regression analyses, she also showed that these dimensions explain a
significant portion of overall satisfaction with service encounter.

Mattila (1999) examined the impact of culture on customer evaluation of complex
services. Her goal was to understand the tradeoffs that Western and Asian customers
are willing to make between personalized service and pleasant physical environment
in a context of luxury hotels. She provided a framework that adds to Winsted’s (1997)
study by explaining the cultural differences between Western and Asian customers in
terms of individualism versus collectivism, power distance (Hofstede 1980, 1991),
and high-versus low-context communication (Hall, 1984). However, she did not
control for these dimensions when she split her sample into three categories:
Westerners, Asian Chinese, and Asian Indian. Her findings suggest that customers
with a Western cultural background are more likely to rely on the tangibles cues from
the physical environment than would their Asian counterparts and that the hedonic
dimension of the consumption experience might be more important for Western
consumers than for Asians.

Donthu and Yoo (1998) studied the effect of customers’ cultural orientation on their
service quality expectations. They used Hofstede’s dimensions of culture and the
dimensions of service quality from the SERVQUAL scale to develop and test
hypotheses relating the five dimensions of culture with both a measure of the overall
service quality expectation and the five service quality dimensions. He found that
there is a linkage between the cultural dimensions and service quality dimensions.

Through reviewing the previous works on service quality, it is possible that this study
may capture different dimensions that are not captured by SERVQUAL as the
cultures of Malaysia are dissimilar from the Western cultures. Therefore, the need of
having an instrument that measures the service quality in Malaysia service industries arise.

**METHODOLOGY**

**Sample and Data Collection**

The current study adopts an exploratory qualitative approach, which is focus group interview, to generate items representing various facet of service quality and also identify the dimensions customers consider when evaluating the quality of services across the two industries. This methodology is consistent with previous research such as Parasuraman et al. (1985) who also employ focus group interviews to identify the dimensions for their SERVQUAL model. Through the execution of focus group interviews used on customers, an in-depth understanding of the issues surrounding how provision and expectation of the quality offering of the service provider was developed.

The sampling frame includes three major ethnic groups of consumers from the restaurant and hotel industries. The qualitative research stage entailed performing four group interviews, each with nine respondents from three ethnic groups. For each industry, there were two group interviews. The population targeted for this study is the local consumers who receive services from the two service industries in the last three months. The participants will be selected by using the researcher own judgment or selections with purpose (Tellstrom et al., 2006). The researcher will also consider the demographic criteria (age and education level) of the participants. Other than that, the participants will be selected by using snowballing method that is the initial participants will be request to recommend their friends who are from the same background as theirs (Tellstrom et al., 2006).

During the interview, the participants were asked whether they had patronized to any of the service industry during the last three months. The participants were asked to think of for instance, their dining experiences (positive and negative critical incidents) and to indicate the relevant attributes of the restaurant that they perceived as part of the quality of service. The moderator stimulated the participants into communicating without influencing their opinions, producing an extensive debate. However, should the case arise that some of the classic items which have been identified by reviewing secondary information sources not be mentioned, the moderator, at the end of the meeting, attempted to obtain opinions as to whether this is due to forgetfulness or not considering the attributes to be relevant. Finally, the attributes of service quality about which there exist greatest unanimity were selected and put in the consumer's own words. All interviews were recorded on digital audio player and fully transcribed. The resulting transcriptions were analyzed and a number of potential antecedent factors emerged.

The data collected through focus group were verbatim transcribed and the research emerged a number of potential antecedent factors. The data for the focus group were analyzed using coding system. Inductive categorization method that involves labeling recurring factors found in a passage of text was applied (Spiggle,
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1994; Strauss and Corbin 1990). Similar processes are referred to as content analysis in the services literature (de Chernatony and Riley 1999; Tax et al. 998). The method is used extensively in consumer behavior research to identify and document thematic relationships among various text passages (McCracken 1988; Richins 1997; Schouten and McAlexander 1995; Thompson 1997, 1999; Thompson and Hirschman 1995).

In this research, three independent coders processed the survey results to identify and categorize the factors that influence customer perceptions of quality services. The coders were familiar with qualitative research procedures but not the marketing literature and are unaware of any priori conceptualization. The process is therefore data driven, as the objective is to identify emergent factors from the open-ended responses (Spiggle, 1994). The coders placed the responses into multiple categories. They discuss disagreements; if a resolution cannot be reached, the incident will be counted against the reliability assessment (Kassarjian, 1977). All dimensions emanating from the responses will be counted, but only those judged distinct from the other variables in the model will be included in the conceptualization.

**RESULTS**

The study revealed several aspects influence consumers’ perception of service quality; however, four major themes were present in the responses. The four primary categories of service quality (interaction quality, physical environment quality, and outcome quality and personalization quality) were explored and twelve subcategories that further refined the basis of the comments. Full details of the results, including a typology of service quality, and excerpts from the results, are provided in Table 1.

Interestingly, the classification of the data suggested that personalization of service was found to be an extremely important dimension of service evaluation which is different from the Brady and Cronin (2001) model. For example, one consumer said,

Another good thing about the regular restaurant is that they know what I actually want to eat. If they have the new menu, they will introduce or recommend to me. So, I will feel very proud. I feel like I am the member there, very exclusive. Then I feel like I am special because they will tell me as they know I never taste that new menu before.

Similarly, another customer reported the following when reflecting on the experience:

We don’t need to order our food. We reach there, I think by 5 or ten minutes, the food is already on the table. Sometime, if I bring my friends together to the restaurant, the server might ask my friend what do you want or what do you like to drink? But they won’t ask me. And then they will bring my favorite drink and put it on table. So, it makes me feel like I am unique over there. He didn’t ask me anything but I can have a drink over here.

The preceding excerpts were typical of many of the consumers’ responses. Thus it appears that personalization influence consumers’ perceived service quality.
Overall the qualitative responses indicated that the service quality is very subjective and also quite complex. To gain a deeper understanding of how consumers define service quality, further analysis need to be done.

### TABLE 1: RESPONSES BY CONSUMERS

<table>
<thead>
<tr>
<th>Category</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td><strong>Interaction quality</strong></td>
<td></td>
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</table>
| **Attitude**              | “The house keeper, they just don’t know how to smile and also the reception there”  
                           | “They have double standard in treating the local and foreign customer We are paying the same, no something extra. They should the same service to everyone”                                                   |
| **Behavior**              | “The server didn’t even apologize to me. At least, she should say sorry, because I am attend the call, no one else or something. She could response to me what happen explain. She didn’t explain to me and nothing happen.” |
|                           | “The server will show face if we take a long time to order the food”                                                                                                                                     |
| **Expertise**             | “They don’t know what to recommend, read through the menu with you”  
                           | “I feel frustrated when staff unable to provide information upon asking”                                                                                                                                |
| **Physical quality**      |                                                                                                                                                                                                          |
| **Ambient conditions**    | “Some of the hotel, the type of lighting so dark. You go inside like go to a haunted house”  
                           | “The hotel should be not dim, light everywhere, noticeable, not a single shadow anywhere”                                                                                                               |
| **Design**                | “The size of the lift in the hotel is very small”  
                           | “No matter is high or low class restaurant, They should divide into two section, smoking and non-smoking”                                                                                               |
| **Social factors**        | “The customer that sat besides my table screaming and complaining about the price, make us can’t continue our dinner as too noisy.”  
                           | “I feel bad when other customer smoking at the dining area”                                                                                                                                               |
| **Outcome quality**       |                                                                                                                                                                                                          |
| **Waiting time**          | “The server take more than 45 minutes to serve the food”  
                           | “I waited long in room, about an hour for a toothpaste”                                                                                                                                                 |
Tangibles
- “Most problem with the TV because some channel cannot access”
- “With uniform, the server looks more organized, neat and more professional”

Valence
- “I feel guilty as I go during closing hour but the service was very good”
- “We forgot to bring our wallet but the boss say never mind”

Personalization

<table>
<thead>
<tr>
<th>Close relationship</th>
<th>“They recognize us and address with our name”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“They are familiar with our face, which meal we will order”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special treatment</th>
<th>“If they have new menu, they will recommend to you, so you will feel very proud in front of my friends”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“We don’t need to order our food, the food is already on the table. I feel like I am unique over there”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal attention</th>
<th>“They will really make it a point for them to take care of you which is very sweet”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“The server was watching TV when I wanted to make payment. He is not paying attention to me.”</td>
</tr>
</tbody>
</table>

**DISCUSSION**

For the last two decades, service quality has received much attention from practitioners, managers and researchers due to its apparent relationship to business performance, lower costs, customer satisfaction, customer loyalty, customer retention and profitability (Leonard and Sasser, 1982; Reichheld and Sasser, 1990; Cronin and Taylor, 1992; Gammie, 1992; Hallowell, 1996; Chang and Chen, 1998; Gummesson, 1998; Lassar et al., 2000; Silvestro and Cross, 2000; Newman, 2001; Sureshchander et al., 2002; Guru, 2003). Yet, to date, the conceptualization and measurement of service quality perception has been the most debated and controversial topics in the services marketing literature. In fact, perceived service quality has proved to be a difficult concept to grasp. Brady and Cronin (2001) described the conceptual work on service quality as “divergent” while Parasuraman et al. (1985) and Smith (1999) referred it to "elusive".

This study attempted to examine the service quality dimensions those are of concern in the hospitality and tourism industry in Malaysia. We provide qualitative evidence that different dimensions emerged compare to previous conceptual dimensions such as SERVQUAL. Each subdimension is appropriately conceived as an aspect of service quality. Taken together, the results appear to be applicable to the industries of concern.
First, we agree upon the view that perceived service quality is evaluated on the basis of three main dimensions: interaction, physical environmental, and outcome quality. These three aspects of service quality are adapted from Brady and Cronin’s (2001) study. They have combined Gronroos's (1982, 1984) seminal idea that service quality is assessed according to customer evaluations of outcomes as well as interactions with service employees and Rust and Oliver's (1994) three-component conceptualization of service quality. The combination constitutes a customer’s primary perception of the quality of service. Therefore, it appears that the categorization of service quality is appropriate to Malaysian cases as well.

Second, our qualitative and empirical results also indicate that new dimension emerged, which is personalization. This theme is consistent with the findings that reported in Raajpoot’s (2004) study where he also pointed out the need of this dimension. This is an important aspect not covered in the literature concerns the recognition and respect of a customer’s social status and the provision of preferential treatment (Raajpoot, 2004). In societies with high power distance like Malaysia (Hofstede, 1991; Abdullah, 1992), public recognition of one’s social status or granting ‘face’ is very important (Hofstede, 1980). In other words, Malaysian consumers are favor in gaining respect, social and professional position, reputation, and self-image. Consequently, they are highly sensitive to criticism and interpersonal treatment during service encounters.

Yet we argue that service quality perceptions are multilevel or hierarchical. Indeed, Carman (1990) noted that customers tend to break service quality dimensions into various subdimensions. There were also studies that identify the attributes or factors that define the subdimensions (Brady and Cronin, 2001; Dabholkar et al., 1996). On the basis of these findings, we come up with subdimensions of this new theme: recognize the customers and their needs (close relationship), provide unique treatment to the customer (special treatment), and give full attention to the customer (personal attention).

Third, as what we have mentioned earlier in this paper, we found that perspectives like the Nordic and the American school do not fully capture the unique aspects of non-Western cultures. Several researchers have found that consumers in different cultures not only evaluate service encounter quality along the five dimensions captured by SERVQUAL but also dimensions not captured by SERVQUAL (Winsted, 1997; Imrie et al., 2000; Imrie et al., 2002; Raajpoot, 2004). The resulting impasse has led to a call for research to reconsider the various dimensions of service quality. In this research, we have the same finding where dimension like personalization is not included in the Western study.

Taken together, the findings strongly suggest that today’s restaurant service providers need to understand how their customers assess the quality of service experiences. In fact, they should seek for balance on every aspect of service quality dimensions. They should balance their efforts and resource allocation to every functional aspect such
that customers will find every service dimension to be satisfactory. Likewise, the
results presented here require managerial attention in efforts to improve consumer
perceptions of service quality. Therefore, our findings can guide managers as they
endeavor to enhance customers’ service experiences.

On the other hand, this study has significant managerial contributions. It advance
further research in the service marketing and relationship marketing. This study also
provides insights into the cultural-specific service quality facets. The results show that
cultural orientation influences customer perceptions of service quality. These new
finding will foster further research in the area. The estimation of the effects of the
cultural factors would provide valuable input for intentional market segmentation and
resource allocation across the service quality dimensions.

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THE POTENTIAL OF COBRANDED PRODUCT EXPANSION IN MALAYSIA: PRODUCT QUALITY, PERCEIVED FIT AND CONSUMER ATTITUDE

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ABSTRACT

Product expansion is a pervasive marketing activity for continuous growth of a company. On the other hand, brand alliance has evolved as an alternative to risky self brand extensions and costly stand-alone branding strategies in today’s highly competitive marketplace, particularly in the US. However, the prospect of brand alliance, or cobranding, as an alternative strategy to companies in Malaysia, has not received appropriate attention from both the practitioners and academicians. This study attempted to evaluate the potential of cobranding a new product expansion. The results show that perceived expertise or expansion quality and fit are more important in influencing consumers’ attitude.

INTRODUCTION

Branding is an important marketing tool for companies to inform customer indirectly about their product quality and to create consumer’s purchase intention. In most marketplace transactions, particularly in consumer goods, brand is an important influence. Brands help and simplify consumer decision making by giving a sense of security and consistency (Barwise and Robertson, 1992). Brand extension and brand alliance are the popular applications of branding strategy. According to Kotler (1991), brand extension is the effort to extend a successful brand name to launch new products. Nevertheless, there are still some potential risk to the extension and to the parent brand, such as poor fit with the existing brand and cannibalization of existing lines. Hence, brand alliance is an alternative branding strategy which leverage on the partner’s brand equity.
Researchers in previous branding studies (Rao and Ruekert, 1994; Simonin and Ruth, 1998; Rao et al., 1999) have defined brand alliance as the circumstances in which two or more brand names are presented simultaneously to consumers as a means to examine the quality of a product. Typically, brand alliance involves the combination of at least two popular brands in a product (Swaminathan and Reddy, 2000). The effect of brand equity on consumer’s reactions to brand combinations and how such brand equity is used to evaluate product attributes in consumer purchase intention or behavior have received some academic attention (Judith et al., 2004).

Various brand extension and brand expansion is being presumed profitable as the brands are already well-known in the market which incurs low new product introduction cost. Brand extension is an approach whereby a current brand name is used to enter into a completely different product class (eg: Jello frozen pudding pops, Clorox laundry detergent, Ivory shampoo, and NCR photocopiers). On the other hand, brand expansion refers to the line extension in which an established product’s brand name is used to launch a new, slightly different item in the same product category. Ingredient branding initiated by Norris (1992) is one type of brand expansion. A well-known example of ingredient branding is Intel microprocessor in computers.

While previous researchers have investigated the effect of ingredient branding on consumers behavior (Desai and Keller, 2002) and the advantages of brand alliance (Park et al., 1996), little is known about the effect of a brand as a host or ingredient in a product expansion. Furthermore, there have been only limited studies conducted to determine the role of brand portfolio in brand alliance. For instance, coffee cola is a product expansion launched by PepsiCo whereby cola is the host while coffee is an ingredient. However, such an expanded product maybe a result of the joint effort between Nestle and Coca-cola.

Thus, the objectives of this study are twofold. First, the study attempted to investigate the effect of brand portfolio and its role as a host or ingredient in a product expansion. Second, it was also the goal of this study to understand the impact of perceived fit and brand quality on consumer attitude towards a new product expansion using a brand alliance strategy.

LITERATURE REVIEW

Brand Alliance

Brand alliance appears in many faces, varies from joint promotion to ingredient brand alliance. Joint promotion is the promotion of complementary product use. For instance, Bacardi Rum and Coca-Cola can two different consumable products but can be mixed together for consumption. Nonetheless, the ingredient brand alliance is an integration of two products such that one product cannot be consumed without consuming the other, for example, Diet Coke and NutraSweet are virtually inseparable (Rao and Reukert, 1994). In the market, brand managers’ interest in the use of brand alliances has increased. They used it as a tool to breath life into an existing brand, to establish the perceived quality of a new brand, to reach untapped market segments, and as an alternative brand extension strategy (Rodrique and Biswas, 2004).
Brand alliance can serve as quality signals when an individual brand fails to indicate the quality by itself. According to Rao and Reukert (1994), if one brand name on a product gives a certain signal of quality, then the presence of a second brand name on the product should result in a signal at least as powerful, if not more powerful than the signal in the brand itself. The premise of brand alliance ‘is because brand names are valuable assets, they maybe combined with other brand names to form a synergistic alliance in which the sum is greater than the parts’ (Rao and Reukert, 1994). Brand alliance has positive effects on consumer’s perceived quality, purchase intention and willingness to pay a premium price. In brand alliance, consumers have favorable attitude toward the alliance, including the pre-existing attitudes toward the brand, perceived fit of products and perceived fit of the brands (Simonin and Ruth, 1998).

**Brand Strategies**

Ingredient brand has positive impact on a host brand (Berry, 1993). Co-branded ingredients have the benefits of competitive differentiation and enhance equity to the host brand. Ingredient brand enable host brand successfully introduce a completely new brand into the host category. This new attribute somehow also helps to expand the usage of host brand. However, there is a risk in monetary compensation of withdrawing of the ingredient brand in future (Desai and Keller, 2002).

Previous brand alliance researches have examined the effect of ingredient branding (Desai and Keller, 2002), the role of header and modifier brand on the perceived new product attributes (Park et al., 1996), and the spillover effect on each of the partnering brand (Simonin and Ruth, 1998). Specifically, Desai and Keller (2002) studied consumer evaluations towards the new product in two ingredient branding contexts: (a) modifying the current attribute, versus (b) introducing a new attribute into the host category. Simonin and Ruth (1998), on the other hand, demonstrated that consumers’ attitude toward a brand alliance can influence their subsequent attitude towards each partner’s brand. Park et al. (1996) showed that the header and modifier brands will contribute to the new product attributes. Thus, the complementary attributes of the two brands are more important than the preference of them.

As the effect of host branding has received limited attention in previous research, we therefore hypothesized that

**H1**: There is a significant difference in (a) perceived fit, (b) expansion quality, and (c) consumer attitude toward the host branding compared to ingredient branding.

**Brand Portfolio**

Brand literature has suggested the effect of brand portfolio in new product introduction. For instance, Dacin and Smith (1994) exhibited that the number of products affiliated with a brand and the variance in quality among those products are
the basic properties of brand portfolio which will influence consumer evaluations towards the new products. In particular, consumers tend to be more confident towards products based on a large number of samples compare to a small one. Likewise, the perceived fit of an extended product introduced by a multiple products parent brand is greater than when the parent brand has a narrow portfolio. Nisbett et al. (1983) suggested that brands that associated with numerous product categories promote greater confidence in the accuracy of consumer’s brand belief. Nevertheless, brand may loss its identity and hence its strength as the number of product affiliated with it increases (Farquhar et al., 1993).

Based on the above discussion, we predicted that

H2: (a) Perceived fit, (b) Expansion quality, and (c) Consumer attitude towards new product expansion are higher for wide brand portfolio than the narrow one.

Importance of Perceive Expertise and Fit

Zeithamal (1988) defined perceived quality as the global assessment of a consumer’s judgment about the superiority or excellence of a product. Desai and Keller (2002) showed that the evaluation of a category extension is dependent on how good the fit is perceived between the expanded or the parent brand and the extension category. Tauber (1988) has concluded that the consumer perceives the new item to be consistent with the parent brand is a key element in predicting the extension success. Fit is important to an extension as the transfer of the perceived quality of a brand will be enhanced when two products classes fit together in some way and poor fit might create undesirable beliefs and association. If the fit is incongruence, the extension may be regarded as ridiculous (Aekar and Keller, 1990).

There are two important principles on fit perceptions between the host brand and the extension (Aekar and Keller, 1990). First, the stronger is the linkage between the ingredient and host brand, the higher fit is perceived between the ingredient brand and the extension category. Second, the more the brand is perceived to have the credibility and expertise to make the extension product, the greater would be the perceptions of extension fit.

In view of the consistency findings in the previous research, we anticipated

H3: Product fit has a significant impact on consumer attitudes towards the new product expansion.
H4: The perceived product quality has a significant effect on consumer attitudes towards the new product expansion.
METHOD

This research employed 2 (brand portfolio type: narrow vs. wide) x 2 (expansion strategy: host vs. ingredient) between-subject design resulted in a total of four different treatments in this study. Nestle and Coke were the wide and narrow portfolio brand, respectively. The new product expansion was either coffee cola or cola coffee. While coffee cola were introduced in the market by Pepsi but failed, cola coffee was a hypothetical product in light of the wide series of flavor coffee such as toasted almond, blueberry, hazelnut, etc. in the market.

Four different sets of self-administered questionnaires were designed. They were arranged according to random digit before distributing to the subjects. The questionnaires were distributed through systematic sampling at the university library, whereby every fifth person who passed by the entrance of the library was requested to answer the questionnaire.

The process flow of the questionnaires began with the description of the parent brand followed by questions related to the parent brand evaluations. In the host and ingredient branding conditions, a cover story on the introduction of a new product (coffee cola vs. cola coffee) by the parent brand (wide vs. narrow brand portfolio). A series of questions related to the brand expansion were asked. Finally, socio-demographic information on gender, age and race were identified. All questions followed those in Desai and Keller (2002) except the attitude scales which were developed from Osgood et al. (1957). Respondents were also requested to put down their thoughts and feeling towards the new product expansion.

RESULTS

Profile

There were 168 university students recruited in this study and 21 questionnaires were discarded due to incompletion of it. Hence, the final usable response rate was 87.5%. The respondents consisted of both genders with more females than males (n=112 vs. n=35). The distribution of both genders was not significantly different among the four treatment groups (p=.410). In addition, the distribution of respondent ethnicity was not found associated with the treatment groups (p=.070). The age of respondents ranged from 19 to 35 years, with an average of 22.11 and a standard deviation of 2.381. However, the average age of respondents in the ingredient branding group (M=21.428) were found slightly younger than the other two groups (M=22.429 for control and M=22.361 for host) significantly (p=.020).

Manipulation Checks

In terms of the manipulation of the variables, analysis of variance (ANOVA) results showed that respondents were equally familiar with the two brands (p=.576). Furthermore, the narrow and wide brand portfolio execution was found successful.
Respondents reported significantly ($p=.000$) more products offered by Nestle ($M=7.220$) than Coke ($M=1.397$). Similarly, the 7-point scale measurement also pointed to the greater variety carried by the Nestle brand than the Coke brand ($p=.000$). Respondents in all four treatment groups also indicated low familiarity with the newly introduced product ($p=.995$).

However, assessment on the parent brand quality (Cronbach’s $\alpha=.813$), attitude (Cronbach’s $\alpha=.934$) and purchase frequency pointed to the difference between the two brands. In particular, Nestle brand was rated significantly higher in its product quality ($p=.000$), consumer attitude ($p=.000$), and frequency of purchase ($p=.000$) than its counterpart. In addition, consumers` attitude towards the brand is correlated to the perceived brand quality significantly ($r=.663$, $p=.000$).

### Hypotheses Testing

Hypothesis H1 asserted that consumer evaluations toward the host branding will be different from the ingredient branding. In addition, H2 suggested that such consumer evaluations will also be influenced by the brand portfolio. Table 1 exhibits the ANOVA results of the perceived fit (Cronbach’s $\alpha=.903$). The result revealed that neither brand portfolio (narrow vs. wide) nor branding strategy (ingredient vs. host) led to differences in consumer perception of fit ($p=.171$). Hence, H1a and H2a were not supported.

**TABLE 1: ANOVA OF BRAND PORTFOLIO AND STRATEGY ON PERCEIVED FIT**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>3</td>
<td>3.659</td>
<td>1.694</td>
<td>0.171</td>
</tr>
<tr>
<td>Intercept</td>
<td>1</td>
<td>1835.706</td>
<td>849.777</td>
<td>0.000</td>
</tr>
<tr>
<td>Brand Portfolio</td>
<td>1</td>
<td>4.581</td>
<td>2.120</td>
<td>0.148</td>
</tr>
<tr>
<td>Strategy</td>
<td>1</td>
<td>2.891</td>
<td>1.338</td>
<td>0.249</td>
</tr>
<tr>
<td>BP x Strategy</td>
<td>1</td>
<td>3.883</td>
<td>1.798</td>
<td>0.182</td>
</tr>
<tr>
<td>Error</td>
<td>143</td>
<td>2.160</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In regards to expansion quality (Cronbach’s $\alpha=.900$), the ANOVA result revealed a significant influence of brand portfolio on perceived expansion quality ($p=.000$). Table 2 presents the discrepancy in perceived brand quality. The changes in quality perception were more immense in broad portfolio brand compared to the narrow one. Therefore, H2b was support but not H1b.

**TABLE 2: PERCEIVED QUALITY TOWARDS PARENT BRAND AND EXPANDED PRODUCT**

<table>
<thead>
<tr>
<th>Parent</th>
<th>Brand</th>
<th>Expanded</th>
<th>Product</th>
<th>Difference</th>
</tr>
</thead>
</table>

144
Pertaining to consumer attitude, the ANOVA result yielded a significant difference in consumer attitude (Cronbach’s $\alpha=.968$) toward the expansion ($p=.000$). Specifically, the main effect of brand portfolio was found significant ($p=.007$). Table 3 revealed that consumer attitudes towards the product expansion, whether host or ingredient branding, deteriorated. The changes in attitude were more profound in broad portfolio compared to its counterpart ($p=.000$). Thus, H2c were supported but not H1c.

**TABLE 3: CONSUMER ATTITUDES TOWARDS PARENT BRAND AND EXPANDED PRODUCT**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Parent Brand Attitude (M±SE)</th>
<th>Expanded Product Attitude (M±SE)</th>
<th>Difference (M±SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide-Host</td>
<td>5.414 ± 0.177</td>
<td>4.115 ± 0.205</td>
<td>-1.300 ± 0.258</td>
</tr>
<tr>
<td>Wide-Ingredient</td>
<td>5.343 ± 0.187</td>
<td>3.902 ± 0.231</td>
<td>-1.442 ± 0.273</td>
</tr>
<tr>
<td>Narrow-Host</td>
<td>4.365 ± 0.166</td>
<td>4.256 ± 0.205</td>
<td>-0.109 ± 0.242</td>
</tr>
<tr>
<td>Narrow-Ingredient</td>
<td>4.543 ± 0.182</td>
<td>3.850 ± 0.224</td>
<td>-0.693 ± 0.265</td>
</tr>
</tbody>
</table>

To test H3 and H4, analysis of covariance (ANCOVA) with expansion quality and perceived fit as the two covariates was employed. The result (Table 4) indicated that expansion quality and perceived fit were indeed two significant factors influencing consumers’ attitudes toward the new product expansion ($p=.000$). Therefore, H3 and H4 were supported.

**TABLE 4: ANCOVA OF BRAND PORTFOLIO AND STRATEGY ON PERCEIVED FIT**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>5</td>
<td>35.943</td>
<td>37.077</td>
<td>0.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>1</td>
<td>2.918</td>
<td>3.010</td>
<td>0.085</td>
</tr>
<tr>
<td>Expansion Quality</td>
<td>1</td>
<td>24.839</td>
<td>25.622</td>
<td>0.000</td>
</tr>
<tr>
<td>Perceived Fit</td>
<td>1</td>
<td>54.830</td>
<td>56.560</td>
<td>0.000</td>
</tr>
<tr>
<td>Brand Portfolio (BP)</td>
<td>1</td>
<td>0.001</td>
<td>0.001</td>
<td>0.974</td>
</tr>
<tr>
<td>Strategy</td>
<td>1</td>
<td>1.463</td>
<td>1.509</td>
<td>0.221</td>
</tr>
<tr>
<td>BP x Strategy</td>
<td>1</td>
<td>2.934</td>
<td>3.027</td>
<td>0.084</td>
</tr>
<tr>
<td>Error</td>
<td>141</td>
<td>0.969</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DISCUSSION AND CONCLUSIONS

This study reveals three important findings. First, the brand name used as a host or an ingredient in co-branding context does not seem to exert greater preference or quality evaluation towards the cobranded product expansion. This result contradicts with the suggestion of Rao and Ruekert (1994) in which co-branding could signal higher quality of the product, or at least the same level of quality. One possible explanation lies in the nature of the expanded product. As both coffee and soft drink are generally regarded as unhealthy, the combination elicits more negative attitude.

Second, broad portfolio brand is actually more susceptible to cobranding effect than a narrow brand. While previous research generally pointed to the higher resistance to dilution and the greater level of extension acceptance with broad portfolio brand, the result of this study showed otherwise. We argued that narrow portfolio brand may posses stronger brand concept and belief than broad portfolio brand. As such, a single expansion may not be sufficient to dilute the perceived quality and attitude. This argument is consistent with the effect of concentration in chemistry in which a drop of ink may disperse more quickly if the liquid is low in its concentration. On the contrary, high concentration solution will localize the ink.

Third, consumer attitudes toward the cobranded product expansion are directly influenced by the perceived fit and expansion quality. This finding is consistent with that reported by Aaker and Keller (1990). Thus, brand manager should consider these two factors when selecting appropriate expansion in co-branding context.

Further research may be look into the comparison between self and co-brand. Replication with different kind of product, perhaps a pairing between a negatively evaluated brand and a positive brand, could be beneficial to the industry practitioners. Different type of population, rather than students, could be considered in the future research.

REFERENCES


CONTEMPORARY CHALLENGES OF THE RETAIL SECTOR IN INDIA
WITH SPECIAL REFERENCE TO PUNE CITY

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ABSTRACT

The organized retail sector is expected to grow at a higher rate than GDP growth in the next five years driven by changing lifestyles, strong income growth and favorable demographic patterns.

The structure of retailing is developing rapidly with shopping malls becoming increasingly common in large cities, and development plans being projected at 150 new shopping malls by 2008. According to the report, the annual growth of department stores has been estimated at 24 per cent, which is faster than overall retail; and supermarkets have taken an increased share of general food and grocery trade over the last two decades.

Disposable incomes remain concentrated in urban areas, `well-off' and affluent classes and the growing number of double-income households. However, the report reveals that the sheer size and potential of the rural segment has been underestimated. The Indian market is evolving dynamically and there is hidden consumption power in the low-income rural areas that offers considerable opportunities for organized retailers in the kind of rural territories that many companies have failed to address. The retail growth therein is expected to be double-
digit if infrastructure allows the consumer companies to reach new markets at reasonable costs.

Specialized retailers in segments such as consumer durables and white goods, books, music, lifestyle goods, household furnishings, furniture, healthcare & beauty, etc are developing rapidly and Indian retailing is undergoing a slow but deep-rooted shift away from total reliance on countless small family-run stores towards larger, more formal retail outlets. However, for foreign retailers willing to do business in India, concerns such as cost of retail space, FDI controls, ‘unorganized’ sector competition, shortage of urban retail space need to be addressed.

Retailing in India in the lifestyle segment as well as the value retail segment is in the nascent stage. The opportunity is really big for any player in the retail sector. Having said this, I must admit that the penetration of organized retail has been somewhat higher in the apparel segment. The overall market for food and grocery is estimated to be Rs 6.7 lakh crore, of which the share of organized retail is estimated at Rs 4,000 crore, which is less than 0.6 per cent. This segment is estimated to grow at a CAGR (compounded annual growth rate) of 33 per cent over the next five years. Another segment which has negligible penetration in organized retail is health and beauty care. The books and music segment is expected to grow 25 per cent. The growth in apparel is expected at 16 per cent per annum over the next five years.

The highest growth will probably be witnessed in consumer durables, electronics, furniture, home decor, and furnishings considering the fact that nearly five million homes are being sold in the country every year.

Today, with aggressive lending by banks and finance companies at fairly low rates of interest, the need to save has decreased. Rising levels of income have led to increase in discretionary income of the consumer. Cash is giving way to credit cards. Urban consumers gravitate towards an enhanced shopping experience today, both consciously and sub-consciously, and are willing to pay the extra price for it. With the Internet and increased focus on retailing in the mass media, bargain shopping has become much easier and, ergo, more prevalent. So, if they don't go for a bargain, it's not for lack of information, but their weighing of other attributes.

As their pockets fill up, consumers are more willing to take greater risks in investment, employment, and purchases. Impulse decisions have entered the arena of big-ticket shopping as well. The urban shopper is almost obsessed with here and now! Flouting convention, men have begun to approach shopping more indulgently than before. They tend to spend almost as much time and thought on shopping as women traditionally have.

Retail in India

Indian Retail Landscape:

India’s GDP growth rate is a healthy 9% for 2005-06 – and this has had its ripple effect on all industries- more so the Retail sector, of which only 3 % was organized until now.

- The Indian retail industry accounts for 10% of GDP and 8% of employment.
- India is being touted as the next big retail destination with an average three year compounded annual growth rate of 46.64%.
• The Indian economy is poised to take the third position in the world in terms of Purchasing Power Parity by the year 2010.
• The Indian Retail Market is a Rs.12, 00,000 million market as per the Images India Retail Report 2007.
• Organized Retail market is zooming ahead with an annual growth rate of 30%

The Indian retail market one of India's fastest growing industries -- is expected to grow from US$ 350 billion to US$ 427 billion by 2010. According to Euro monitor International, the Indian Retail market will grow in value terms by a total of 39.6 per cent between 2006 and 2011, averaging growth of almost 7 per cent a year. Modern retail accounts for about 4 per cent of the total retail market in India. This share is expected to increase to about 15 -20 per cent with the entry of a number of corporates into the segment. Modern retail formats have grown by 25-30 per cent in India in the last year and could be worth US$ 175-200 billion by 2016.

1.1 Retail space
Retailers in India are the most aggressive in Asia in expanding their businesses, thus creating a huge demand for real estate. Their preferred means of expansion is to increase the number of outlets in a city, and also expand to other regions, revealed the Jones Lang LaSalle third annual Retailer Sentiment Survey-Asia. Driven by changing lifestyles, strong income growth and favourable demographic patterns, Indian retail is expanding at a rapid pace. The country may have 600 new shopping centres by 2010. Mall space, from a meagre one million square feet in 2002, is expected to touch 40 million square feet by end-2007 and an estimated 60 million square feet by end-2008.

1.2 Growth in Retail Sector:
Indian retailing industry has seen phenomenal growth in the last five years (2001-2006). Organized retailing has finally emerged from the shadows of unorganized retailing and is contributing significantly to the growth of Indian retail sector. RNCOS’ “India Retail Sector Analysis (2006-2007)” report helps clients to analyze the opportunities and factors critical to the success of retail industry in India.

1.3 Organized Retail:
• The total retail trade in India is estimated at around USD 210 billion.
• Of this, organized retail accounted for just 3.4% of the overall retail pie
• The Retail in India is estimated to reach 10-12% by 2010
• India rated as the most attractive destination globally
• Real estate is key for a retail business during its investment phase
• Drop in interest rates have made property buying and leasing viable
• 100% FDI in Construction & Real Estate now permitted
• Over 600 malls expected by 2010
• Total investments of USD 5 bn would be required from organized retailers by 2010
• 4th largest economy in the world (measure in Purchasing Price Parity terms) and is expected to move up to 3rd placing by 2010
• Economy expected to grow at 6-7% p.a. over the next few years
• Disposable income per capita is expected to rise at an average of 8.5% p.a. till 2015
• Retail industry accounts for 35% of India’s GDP and employs 21 million people (which are 7% of entire workforce).
• India ranked 5th in the Global A.T Kearney Retail Development Index 2006

1.4 Retail Opportunities in India

FIGURE 2: THE CHANGING FACE OF ORGANIZED RETAIL

The Retail opportunity in India is estimated as US $300 Bn; ranked amongst the top 10 globally

Source: India Today, January 2007
1.5 Classifying Indian Retail

Modern Format retailers
- Supermarkets (Food world)
- Hypermarkets (Big Bazaar)
- Department Stores (S Stop)
- Specialty Chains (Ikea)
- Company Owned Company Operated

Traditional Format Retailers
- Kiranas: Traditional Mom and Pop Stores
- Kiosks
- Street Markets
- Exclusive /Multiple Brand Outlets

Large Indian retailers
- Hypermarket
  - Big Bazaar
  - Giants
  - Shoprite
  - Star
- Department store
  - Lifestyle
  - Pantaloons
  - Piramyds
  - Shoppers Stop
  - Trent
- Entertainment
  - Fame Adlabs
  - Fun Republic
  - Inox

The Retail sector is vibrant with growth happening in all related areas – be they malls, hypermarkets or single brand luxury stores, they have dotted the commercial landscape of the metros, and have even percolated to the Tier II and Tier III cities.
Malls are fast becoming sought-after entertainment hotspots. From a situation where there were no malls about a decade ago, the country will have over 300 malls translating to over 100 million sq.ft. In available mall space by the end of 2007.

Food and Grocery retail holds the most potential, as almost 99% of it is unorganized. A number of big players are entering the field of organized food retail like Reliance, Aditya Birla Group and the Bharti Group, which has tied up with the world’s largest retailer – WalMart. All these major players are expected to show an annual growth rate of 25-30%.

The Retail boom has also led to the opening of a large number of single brand outlets across the country. With big brands and bigger outlets across all segments, from Apparel and Footwear, Watches, Books and Stationary to Jewellery and Consumer Durables, the sweep is indeed broad.

The Retail Sector is definitely witnessing a growth phase and everyone wants to make their presence felt in order to take their share of this huge pie. Take a gourmet trip - dig in to sample the depth and breadth of this amazing sector.

Types of Retail Chains operating in India

- Food and Beverage
- Health and Beauty
- Clothing and Footwear
- Home Furniture and Household Goods
- Consumer Durable Goods
- Leisure and Personal Goods

1.6 Types of Retailers

There are 3 types of retailers:

1. Store retailer
2. Non Store retailer (E-Tailing)
3. Retail Organization

From the assortment point of view, Store retailers are of 5 types:

1. Specialty Store
2. Departmental Store
3. Super market
4. Convenience Store
5. Discount Store

Specialty Store: Narrow product line with deep assortment, viz apparel stores, book stores etc. A clothing store would be a single line store, men's clothing store would be limited line store & men's custom-shirt store would be a super specialty store.
Example: VLCC, The Body Shop.
Departmental Store: Several product lines—typically clothing, household goods, home furnishings—with each line operated as a separate department managed by specialist buyers or merchandisers. Example: Sears, Shoppers Stop.

Supermarkets: Relatively large, low-cost, low-margin, high volume, self-service operation designed to serve total needs for food, laundry & household maintenance products. Example: Hypercity, Kroger, Safeway.

Convenience Stores: Relatively small store located near residential area, open long hours, seven days a week and carrying a limited line of high-turnover convenience products at slightly higher prices. Example: Ozone.

Discount Store: Standard merchandise sold at lower prices with lower margins and higher volumes. True discount stores regularly sell merchandise at lower prices and offer mostly national brands. Example: Vishal Mega Mart, Wal-Mart, Kmart.

Off-price retailer: Merchandise bought at less than regular wholesale prices & sold at less than retail; often-leftover goods, overruns and irregulars obtained at reduced prices from manufacturers or other retailers.

Factory outlets are owned and operated by manufacturers and normally carry the manufacturer's surplus, discontinued or irregular goods. Example: Mikasa (dinnerware), Dexter (shoes).

Superstore: Averages 35,000 square feet of selling space traditionally aimed at meeting consumers’ total needs for routinely purchased food and non-food items. Usually offer services such as laundry, dry cleaning, shoe repair, check cashing & bill paying.

A new group called "category killers" carries a deep assortment in a particular category & a knowledgeable staff. Example: Borders books & Music, IKEA.

Hypermarkets range between 80,000 and 220,000 square feet and combine supermarket, discount & warehouse retailing principles. Product assortment goes beyond routinely purchased goods & includes furniture, large & small appliances, clothing items and many other items. Bulk display & minimum handling by store personnel with discounts offered to customers who are willing to carry heavy appliances and furniture out of the store. Hypermarkets originated in France. Example: Carrefour and Casino (France), Pyrca, Continente and Alcampo (Spain), Meijer's (Netherlands).
The Indian market is a growing youthful market.
Almost 65% below 35 years of age and 54% of population below 25yrs
Max. growth seen in core market of 20-60 years age.
It is estimated that the middle class of 300m will increase to 600m in 5 years and super rich class of 17m will increase to 35m in 5 yrs.
Over 40mn have same purchasing power as Americans.
Indian economy is growing at 6%, while the population is growing at 1.7%.
Consumer spending grew at a pace of 6% in last 10 yrs in India.
The Indian consumer has greater per capita income and there has been a increase in disposable income of middle class households.
20.9%* growth in real disposable income in ’99-’03.
Growing high and middle income population
Growing at a pace of over 10%* per annum over last decade
The Affordability of Indian consumer had increased due to Falling interest rates, Easier consumer credit, Greater variety and quality at all price points
The urban consumer is Getting exposed to international lifestyles and is Inclined to acquiring assets. He is More discerning and demanding than ever
The shopping today is no longer need-based shopping. It is a family experience
The changing mindset of the Indian consumer has resulted in increasing tendency to spend.
Another reason for increase in spending is greater levels of education and a broader mindset
Retailing, one of the largest sectors in the global economy, is going through a transition phase in India. For a long time, the corner grocery store was the only choice available to the consumer, especially in the urban areas. This is slowly giving way to international formats of retailing.
Let us look at the evolution process:
Detailing reasons why Indian organized retail is at the brink of revolution, the IMAGES-KSA report says that the last few years have seen rapid transformation in many areas and the setting of scalable and profitable retail models across categories. Indian consumers are rapidly evolving and accepting modern formats overwhelmingly. Retail Space is no more a constraint for growth. India is on the radar of Global Retailers and suppliers / brands worldwide are willing to partner with retailers here. Further, large Indian corporate groups like Tata, Reliance, Raheja, ITC, Bombay Dyeing, Murugappa & Piramal Groups etc and also foreign investors and private equity players are firming up plans to identify investment opportunities in the Indian retail sector. The quantum of investments is likely to skyrocket as the inherent attractiveness of the segment lures more and more investors to earn large profits. Investments into the sector are estimated at INR 2000 - 2500 Crore in the next 2-3 years, and over INR 20,000 Crore by end of 2010.

3. Malls in Pune

<table>
<thead>
<tr>
<th>Type</th>
<th>Subsidiary of Pantaloon Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Founded</td>
<td>2001</td>
</tr>
<tr>
<td>Headquarters</td>
<td>Mumbai, India</td>
</tr>
<tr>
<td>Industry</td>
<td>Retail</td>
</tr>
<tr>
<td>Products</td>
<td>Department store, Grocery store</td>
</tr>
<tr>
<td>Owner</td>
<td>Kishore Biyani</td>
</tr>
<tr>
<td>Parent</td>
<td>Pantaloon Group</td>
</tr>
<tr>
<td>Slogan</td>
<td>Is se sasta aur accha kahi nahin</td>
</tr>
</tbody>
</table>

Where Big Bazaar scores over other stores is its value for money proposition for the Indian customers. It has opened the doors into the world of fashion and general merchandise including home furnishings, utensils, crockery, cutlery,
sports goods and much more at prices that will surprise you. Now the Pantaloons presence in Mumbai, Delhi, Faridabad, Pune, Ahmadabad, Banglore, Hyderabad and Vadodara. Big Bazar is the new Avatar of Pantaloons retail and it is the number one in space and revenue generation.

Total number of Outlets- 99  
Number of cities covered- 25  
Retail space under use- 3 million square feet  
Footfalls- 12 crore per year  
Conversion Rate- 45%  
Average Bill per customer- 700 Rs.  
Employee strength- 12,000  
It is the present scenario of the Pantaloons and the future plans are tremendous.  
Investment Planned- Rs 500 Cr., till 2006-07  
Targeted sales turnover- Rs. 10,000 by 2010  
Retail Space available- 10 million sq. ft. by 2008  
Employee strength- 1,00,000 by 2010

(Source – India Retail Report 2007, Indies Largest Multiformat Retailers (pp.32-38), Images Multimedia)

**CENTRAL**

<table>
<thead>
<tr>
<th><strong>Type</strong></th>
<th>Subsidiary of Pantaloon Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Founded</strong></td>
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<td><strong>Parent</strong></td>
<td>Pantaloon Group</td>
</tr>
<tr>
<td><strong>Slogan</strong></td>
<td>Shop, eat and celebrate!</td>
</tr>
</tbody>
</table>

Central is a showcase, seamless mall and the first of its kind in India. The thought behind this pioneering concept was to give customers an unobstructed and a pure shopping experience and to ensure the best brands in the Indian market are made available to the discerning Indian customer.

Central houses over 300 brands across categories, such as apparel, footwear and accessories for women, men, children and infants, apart from a whole range of Music, Books, Coffee Shops, Food Courts, Super Markets (Food Bazaar), Fine Dining Restaurants, Pubs and Discotheques.

The mall also has a separate section for services such as Travel, Finance, Investment, Insurance, Concert/Cinema Ticket Booking, Bill Payments and other miscellaneous services. In addition, Central houses Central Square, a dedicated space for product
launches, impromptu events, daring displays, exciting shows, and art exhibitions. Central is an integral part of the city and in the long run a City should become part of CENTRAL.

---(Source – India Retail Report 2007, Indies Largest Multiformat Retailers (pp.32-38), Images Multimedia)

**Piramyd Megastores**

PIRAMAL Holdings Ltd (PHL)

The retail major is also on a signing spree. It has already signed up 11 properties, of which, five will be launched in 2005, four in 2006, and two in 2007. The company is also eyeing five properties across Hyderabad, Gurgaon and Mumbai.

Demand forecasting is the most crucial aspect for any retail chain. This system will enable us to forecast trends in our focus areas of non-apparel categories such as watches, lifestyles and footwear.

The company operates seven Piramyd lifestyle outlets and 14 Trumart grocery shops. Piramyd, whose main rivals are Shopper's Stop and Pantaloons, has been hurt in recent years due to lack of strong management focus and an unclear growth vision. Piramyd wants to revamp its operations and had initiated JV talks with foreign retailers to set up new formats like speciality stores or hypermarkets. The revamp included handling the company's core brands as separate business units. Piramyd is planning to boost its presence in smaller cities, and recently launched a lifestyle store in Jaipur.

*Market Cap: Rs 128 crore
April 24, 2007*

While many investors would see the valuation as a discount to its peers, the company's ability to leverage on its supermarket format (Trumart) is likely to face stiff competition. The superior supply chain developed by the supermarkets such as Subhiksha, Reliance Fresh and Foodworld may be difficult to replicate for the company.
The K. Raheja Corp. group, under the leadership of Mr. C.L. Raheja, are the promoters of Shopper’s Stop Ltd. The group is a leader in residential, commercial, hospitality, retail, townships, IT parks and SEZ developments, with over 5.0 million sq.ft. of annual construction. K Raheja Corp is the first real estate company in India to obtain ISO 9001 (KPMG) certification.

Total Employee strength - 2,509

Shopper's Stop is the only retailer from India to become a member of the prestigious Intercontinental Group of Departmental Stores (IGDS).

The numbers look impressive with a 42.45 per cent increase in profits during 2005-2006.

membership program touched an impressive 64 per cent in the third quarter (Oct-Dec '06) of 2006-2007.

A key challenge for the company has been the delays in roll out of its stores. In the retail industry, such delays can throw the entire inventory management process out of gear thereby adversely affecting the profitability of the company.

The company recently entered into a joint venture with Nuance Group AG of Switzerland with an aim to position itself in the extremely lucrative duty free store segment at airports. The company's next big leap is planned in the luxury retail segment. Apart from these potential revenue streams, the company's positioning in the catalogue and internet retailing space will add a further buffer to sales.

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(Source – India Retail Report 2007, Indias Largest Multiformat Retailers (pp.32-38), Images Multimedia)

VISHAL

Total number of Outlets- 60
Number of cities covered-43
Retail space under use-15,02,587 sq. ft
Investment Planned- Rs 500 Crore till 2006-07
Sales turnover- Rs. 6026.53 million

What started as a humble one-store enterprise in 1986 in Kolkata is today a conglomerate encompassing 60 showrooms in 43 cities. India’s first hyper-market has also been opened for the Indian consumer by Vishal. The group had a turnover of Rs.
1463.12 million for fiscal 2005, under the dynamic leadership of Mr. Ram Chandra Agarwal. The group had of turnover Rs 2884.43 million for fiscal 2006 and Rs. 6026.53 million for fiscal 2007.

The group’s philosophy is integration and towards this end has initiated backward integration in the field of high fashion by setting up a state of the art manufacturing facility to support its retail endeavors. Vishal is one of fastest growing retailing groups in India. Its outlets cater to almost all price ranges. The showrooms have over 70,000 products range which fulfills all your household needs, and can be catered to under one roof. It is covering about 15,02,787 sq. ft. in 18 state across India. Each store gives you international quality goods and prices hard to match. The cost benefits that is derived from the large central purchase of goods and services is passed on to the consumer.

This factory has more than 700 imported machines that have a capacity to manufacturer 150000 pieces a month. The factory occupies 80000 sq ft of covered space. The Vishal group indirectly gives employment to more than a 1000 people. These people work in ancillaries that supply finished goods to the company. Our 10 warehouses cater to 60 showrooms in 43 cities. It is covering about 15,02,787 sq. ft. in 18 state across India. By the end of March 2008 we will expand our outlets to 61 companies owned outlets and many franchise operations.

4. CHANGING TRENDS IN CONSUMER BUYING PATTERNS

The changing Indian consumer

Greater per capita income
- Increase in disposable income of middle class households
- 20.9%* growth in real disposable income in ’99-’03.

Growing high and middle income population
- Growing at a pace of over 10%* per annum over last decade

Affordability growth
- Falling interest rates
- Easier consumer credit
- Greater variety and quality at all price points

The urban consumer
- Getting exposed to international lifestyles
- Inclined to acquiring asset
- More discerning and demanding than ever

No longer need-based shopping
- Shopping is a family experience

Changing Mindset
- Increasing tendency to spend
- Post Liberalization children coming of age
• 100 mn 17-21 year olds*. Tend to spend freely.
• Greater levels of education

Growth factors
• Government Policy
• Infrastructure development
• GDP growth
• Employment generation and job creation in several new sunrise industries implies greater purchasing power

TABLE 1: THE SPENDING PATTERN OF MIDDLE CLASS:-

<table>
<thead>
<tr>
<th>Category (2004)</th>
<th>% Of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, Beverage and Tobacco</td>
<td>43%</td>
</tr>
<tr>
<td>Clothing and Footwear</td>
<td>5%</td>
</tr>
<tr>
<td>Gross Rent, Fuel and Power</td>
<td>12%</td>
</tr>
<tr>
<td>Furniture, Fixture and Appliances</td>
<td>4%</td>
</tr>
<tr>
<td>Medical and Healthcare Services</td>
<td>8%</td>
</tr>
<tr>
<td>Transport and Communication</td>
<td>15%</td>
</tr>
<tr>
<td>Recreation, Education and Cultural</td>
<td>3%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: Retail-Week, March 2006

FIGURE 6: SHIFTING PREFERENCES OF INDIAN CUSTOMERS

Source: Retail-Week, March 2006
RESEARCH METHODOLOGY

A) Objectives of the research-
   a) To do the comparative analysis of individual stores.
   b) To study why people buy more than what they have planned.
   c) To study the overall satisfaction and satisfaction parameters.
   d) To study the correlation between individual factors and satisfaction.
   e) To study the relationship between proximity of the store and the consumer’s residence.
   f) To find out the most important factor influencing consumer decision to visit a mall.

B) Research Approach
   This is an exploratory research process where the objectives envisage a need for seeking insights into the general nature of consumer behavior and the strategies that a retailer can use to increase their sales with the use of promotional campaigns.

C) Sampling technique employed:

   Convenience sampling:
   Considering the time and manpower availability we decided the most appropriate sample size of 250 consumers i.e. 50 for each of the five retail outlet under study in Pune region. These malls are spread across the city and which offer varied products and schemes targeting the consumer population in that area.

D) Data Analysis:
   For anglicizing the primary data statistical software SPSS is used.

   The Data was consolidated and the analysis of the data led to the following findings

1) Source of Introduction to the malls

<table>
<thead>
<tr>
<th>newspapers</th>
<th>hoardings</th>
<th>radio</th>
<th>WoM</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>111</td>
<td>85</td>
<td>52</td>
<td>96</td>
<td>23</td>
</tr>
</tbody>
</table>

   FIGURE 7: SOURCE OF INTRODUCTION TO THE MALLS

   - The source of introduction to the malls was highest with the newspaper print advertisements.
Second being Word of mouth. This also relates to the fact that large numbers of people are literate and newspapers have the highest reach among all the media.

2) Sections visited the most (Departmental store)

<table>
<thead>
<tr>
<th>Men's wear</th>
<th>Women's wear</th>
<th>Grocery</th>
<th>Footwear</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>123</td>
<td>112</td>
<td>82</td>
<td>81</td>
<td>89</td>
</tr>
</tbody>
</table>

FIGURE 8: SECTIONS VISITED THE MOST (DEPARTMENTAL STORE)

- The section that was visited the most across malls was the men’s wear section.
- The overall combined percentage of men’s and women’s wear was 48 percent. This was far more than the individual sections of the department suggesting that branded apparel was a popular choice among consumers.
- The reasons for the above findings can be ascribed to the fact that the consumers stated that Variety, Quality and Availability of all brands was a major liked areas

4) Overall time spent

<table>
<thead>
<tr>
<th>Less than 1 Hr</th>
<th>1-2 Hrs</th>
<th>2-3 Hrs,</th>
<th>More than 3 Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>56</td>
<td>116</td>
<td>52</td>
<td>9</td>
</tr>
</tbody>
</table>

FIGURE 9: OVERALL TIME SPENT
50 percent of the people spend only 1 to two hours in the mall and less than 4 percent spend more than 3 hours at the mall.

5) **Planned purchase**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>125</td>
<td>112</td>
</tr>
</tbody>
</table>

**FIGURE 10: PLANNED PURCHASE**

- 53 percent of people stated that they had planned their purchases in contrast to 47 percent who said that their purchase were unplanned.
- The reasons were dependent of the satisfaction parameters and were varied

8) **Overall satisfaction**

<table>
<thead>
<tr>
<th>Least Satisfied</th>
<th>Fair</th>
<th>Average</th>
<th>Good</th>
<th>Best</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>12</td>
<td>88</td>
<td>133</td>
<td>7</td>
</tr>
</tbody>
</table>

**FIGURE 11: OVERALL SATISFACTION**

- The overall satisfaction of the consumers was good with 55 percent giving the following verdict.
- The overall satisfaction parameter was also based on the individual satisfaction parameters considered and the consolidated findings are represented.
- The major satisfaction areas were the Variety, Quality, Ambience at the store and availability of all the brands under one roof whereas the major dissatisfiers were overcrowding and high prices

6) **Age groups**
Major chunk of the population from the sampling data consisted of youth in the age group of less than 25 years.

Close enough were from the age group of 25-35 which were 40 percent of the overall sampling data

This shows that the mall culture is attracting the young population.

7) Income groups

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 2Lakh</td>
<td>96</td>
</tr>
<tr>
<td>2 to 4 Lakh</td>
<td>72</td>
</tr>
<tr>
<td>above 4 lakh</td>
<td>50</td>
</tr>
<tr>
<td>NA</td>
<td>19</td>
</tr>
</tbody>
</table>

Higher middle class and upper class were the major visitors in the mall which together constituted to 51 percent of the overall sampling data

This suggests that youth visit the mall more often and keeping this in mind, the mall should develop their strategies

KEY FINDINGS, ANALYSIS AND INTERPRETATION

COMPARATIVE ANALYSIS OF INDIVIDUAL STORES:

The following parameters are considered for comparative analysis of individual stores. All these parameters are considered on the basis of pilot study.

Parameters:
1) Parking
2) Store Image
A sum total of all the scores on the above factors in individual store were taken and an average figure is found. On the basis of these averages the store are ranked as below.

1. Parking Factor:

<table>
<thead>
<tr>
<th>Store</th>
<th>Parking</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune Central</td>
<td>3.220389</td>
<td>2</td>
</tr>
<tr>
<td>Big Bazar</td>
<td>3.565213</td>
<td>1</td>
</tr>
<tr>
<td>Pyramids</td>
<td>3.197802</td>
<td>3</td>
</tr>
<tr>
<td>Shopper's Stop</td>
<td>3.158730</td>
<td>4</td>
</tr>
<tr>
<td>Vishal Megamart</td>
<td>3.047619</td>
<td>5</td>
</tr>
</tbody>
</table>

Remarks:
- Majority of the people were happy with the parking facilities provided by Dept Stores.
- Big Bazaar is best for parking as per the respondents.
- Parking was rated as safe and secure but quite costly.

Recommendations: (Should start some value added services like Car and Bike Wash as E-Square has started recently)

2. Store Image Factor:

<table>
<thead>
<tr>
<th>Store</th>
<th>Store Image</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune Central</td>
<td>3.644067</td>
<td>3</td>
</tr>
<tr>
<td>Big Bazar</td>
<td>3.456522</td>
<td>4</td>
</tr>
<tr>
<td>Pyramids</td>
<td>3.733333</td>
<td>1</td>
</tr>
<tr>
<td>Shopper's Stop</td>
<td>3.698413</td>
<td>2</td>
</tr>
<tr>
<td>Vishal Megamart</td>
<td>3.190476</td>
<td>5</td>
</tr>
</tbody>
</table>

Remarks:
- Quality, Ambience, Variety at a single store was never heard before. Since the same was offered to Indian Consumers, the overall satisfaction was high.
- All the stores were rated to have good store image and reputation.
- Pyramids tops the rating followed by Shopper's Stop.
- Most respondents feel that all the 5 dept stores have maintained good store image.

3. Variety Factor:

<table>
<thead>
<tr>
<th>Store</th>
<th>Variety</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune Central</td>
<td>3.932203</td>
<td>1</td>
</tr>
<tr>
<td>Big Bazar</td>
<td>3.782609</td>
<td>4</td>
</tr>
<tr>
<td>Pyramids</td>
<td>3.802198</td>
<td>3</td>
</tr>
<tr>
<td>Shopper's Stop</td>
<td>3.809524</td>
<td>2</td>
</tr>
</tbody>
</table>
Remarks:-
- Variety is the key feature that attracts consumers to the departmental stores.
- All departmental stores have been rated to have good type of variety.
- Pune Central holds the top spot for best variety provision.

4. Staff Communication:

<table>
<thead>
<tr>
<th>Store</th>
<th>Staff Comm Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune Central</td>
<td>3.440677966</td>
</tr>
<tr>
<td>Big Bazar</td>
<td>3.282608696</td>
</tr>
<tr>
<td>Pyramids</td>
<td>3.351648352</td>
</tr>
<tr>
<td>Shopper's Stop</td>
<td>3.349206349</td>
</tr>
<tr>
<td>Vishal Megamart</td>
<td>3.047619048</td>
</tr>
</tbody>
</table>

Remarks:-
- Pune Central has the best staff to communicate with the consumers.
- Staff communication is not satisfactory.

Recommendation: Considering the Potential of retail sector, Class of service offered will affect the sales at any store, Training hence play a larger role in future and should be concentrated on.

5. Staff Understanding:

<table>
<thead>
<tr>
<th>Store</th>
<th>Staff Understanding Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune Central</td>
<td>3.016949153</td>
</tr>
<tr>
<td>Big Bazar</td>
<td>3.369565217</td>
</tr>
<tr>
<td>Pyramids</td>
<td>3.340659341</td>
</tr>
<tr>
<td>Shopper's Stop</td>
<td>3.380952381</td>
</tr>
<tr>
<td>Vishal Megamart</td>
<td>2.80952381</td>
</tr>
</tbody>
</table>

Remarks:-
- Staff understanding is average as per the survey.
- Respondants found staff needed good training.

Recommendation: Staff training is very much Essential. Professional staff needs to be placed to interact with the consumers. Staff need to be smart and polite.

6. Answering Queries:

<table>
<thead>
<tr>
<th>Store</th>
<th>Answering Queries Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune Central</td>
<td>3.338983051</td>
</tr>
<tr>
<td>Big Bazar</td>
<td>3.239130435</td>
</tr>
<tr>
<td>Pyramids</td>
<td>3.296703297</td>
</tr>
<tr>
<td>Shopper's Stop</td>
<td>3.317460317</td>
</tr>
<tr>
<td>Vishal Megamart</td>
<td>3.095238095</td>
</tr>
</tbody>
</table>

Remarks :-
Respondents were not much bothered about it.
Pune Central staff seems to answer the queries very well.

7. Value For Money :-

<table>
<thead>
<tr>
<th>Store</th>
<th>Value for money</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune Central</td>
<td>3.372881356</td>
<td>2</td>
</tr>
<tr>
<td>Big Bazar</td>
<td>3.217391304</td>
<td>5</td>
</tr>
<tr>
<td>Pyramids</td>
<td>3.230769231</td>
<td>4</td>
</tr>
<tr>
<td>Shopper's Stop</td>
<td>3.412698413</td>
<td>1</td>
</tr>
<tr>
<td>Vishal Megamart</td>
<td>3.285714286</td>
<td>3</td>
</tr>
</tbody>
</table>

Remarks:-
- Respondents reacted that the prices are very high and goods are costly in dept stores.
- Shoppers Stop provides good value for money for its goods compared to others.
- Big Bazaar and Pyramids are very costly as per the survey.

8. Loyalty Programs :-

<table>
<thead>
<tr>
<th>Store</th>
<th>Loyalty Programmes</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune Central</td>
<td>3.526315789</td>
<td>1</td>
</tr>
<tr>
<td>Big Bazar</td>
<td>3.043478261</td>
<td>5</td>
</tr>
<tr>
<td>Pyramids</td>
<td>3.303370787</td>
<td>3</td>
</tr>
<tr>
<td>Shopper's Stop</td>
<td>3.37704918</td>
<td>2</td>
</tr>
<tr>
<td>Vishal Megamart</td>
<td>3.238095238</td>
<td>4</td>
</tr>
</tbody>
</table>

Remarks :-
- Loyalty programs play a vital role to keep customers loyal to that store.
- Pune Central has proved to be the best in providing loyalty programs.
- Big Bazaar needs to work on its loyalty programs for better consumer loyalty.

9. Quality Factor:-

<table>
<thead>
<tr>
<th>Store</th>
<th>Quality</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune Central</td>
<td>3.694915254</td>
<td>1</td>
</tr>
<tr>
<td>Big Bazar</td>
<td>3.326086957</td>
<td>5</td>
</tr>
<tr>
<td>Pyramids</td>
<td>3.604395604</td>
<td>2</td>
</tr>
<tr>
<td>Shopper's Stop</td>
<td>3.476190476</td>
<td>4</td>
</tr>
<tr>
<td>Vishal Megamart</td>
<td>3.523809524</td>
<td>3</td>
</tr>
</tbody>
</table>

Remarks :-
- Pune Central provides the best quality as per the survey.
- Big Bazaar does not show a good degree of quality as per survey.

10. Accessibility:-

<table>
<thead>
<tr>
<th>Store</th>
<th>Accessibility</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune Central</td>
<td>3.491525424</td>
<td>2</td>
</tr>
<tr>
<td>Big Bazar</td>
<td>3.586956522</td>
<td>1</td>
</tr>
<tr>
<td>Pyramids</td>
<td>3.43956044</td>
<td>3</td>
</tr>
<tr>
<td>Shopper's Stop</td>
<td>3.412698413</td>
<td>5</td>
</tr>
<tr>
<td>Vishal Megamart</td>
<td>3.428571429</td>
<td>4</td>
</tr>
</tbody>
</table>

Remarks:-
The survey shows that Big Bazar has the best accessibility. Vishal Megamart and Shoppers Stop are the least accessible.

B) CONSUMER SATISFYING PARAMETERS:

<table>
<thead>
<tr>
<th>Variety</th>
<th>88</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambience</td>
<td>36</td>
</tr>
<tr>
<td>Quality</td>
<td>32</td>
</tr>
<tr>
<td>Convenience</td>
<td>5</td>
</tr>
<tr>
<td>Low prices</td>
<td>5</td>
</tr>
<tr>
<td>Highly Disliked- Overcrowded</td>
<td>53</td>
</tr>
<tr>
<td>Discounts and Promotions</td>
<td>10</td>
</tr>
</tbody>
</table>

After Evaluation of all the parameters, following areas of malls were observed:

<table>
<thead>
<tr>
<th>Mall</th>
<th>Weak Area</th>
<th>Strong Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pune Central</td>
<td>Staff Understanding, Parking</td>
<td>Variety, Quality</td>
</tr>
<tr>
<td>Big Bazar</td>
<td>Loyalty Program, Value for Money</td>
<td>Variety, Accessibility</td>
</tr>
<tr>
<td>Piramid</td>
<td>Parking, Value for Money</td>
<td>Variety, Store Image</td>
</tr>
<tr>
<td>Shoppers Stop</td>
<td>Parking, Staff Communication</td>
<td>Variety, Store Image</td>
</tr>
<tr>
<td>Vishal Mega Mart</td>
<td>Staff Understanding, Parking, Staff Communication</td>
<td>Quality, Accessibility</td>
</tr>
</tbody>
</table>

D) CORRELATION ANALYSIS BETWEEN DIFFERENT FACTORS AND OVERALL SATISFACTION:

1) Conclusion drawn from Correlation Analysis:
As per the correlation analysis done using SPSS software, considering different factors with overall satisfaction, it is seen that:
- There is highest correlation between variety and satisfaction in malls.
- There is lowest correlation between Answering queries and satisfaction.
- Answering queries, Staff understanding is less significant.
- It can be seen that parking, Store Image, Variety, Staff-communication, loyalty programs, quality, accessibility are deciding factors for consumers to visit the malls.

2) Relation between location of mall and residence
- Big Bazaar attracts the most number of consumers from far away. The reason can be ascribed to the fact that it offers good quality at lowest prices.
- Pyramids has the lowest number of people coming from far away places.

3) Most effective marketing mix tool
- The most effective marketing mix tool was newspapers and word of mouth whereas the least effective was radio.

4) Scope for improvement for malls
The malls can should focus on improvement in the following areas as these are the least satisfactory factors for the consumers

- Parking
- Crowded billing areas
- High Prices
- Crowd Management
- Accessibility
- No sitting Space

5) **Average age of consumer visiting malls:**
   - Major chunk of the population from the sampling data consisted of youth in the age group of less than 25 years
   - This shows that the mall culture is attracting the young population
   - The average age group is from 17 to 30 years

6) **Occupation wise most frequent visitors**
   - Private employees and students contribute to the most frequent visitors

7) **Income wise frequency**
   - Higher middle class and upper class were the major visitors in the mall which together constituted to 51 percent of the overall sampling data

8) **Most frequently visited malls in Pune**
   - Pyramids is the most frequently visited mall
   - The reasons can be ascribed to the fact that there are more number of malls in certain areas of Pune

**CONCLUSIONS AND RECOMMENDATIONS**

In India the retail sector is the second largest employer after agriculture, although it is highly fragmented and predominantly consists of small independent, owner–managed shops.

The country is witnessing a period of boom in retail trade, mainly on account of a gradual increase in the disposable incomes of the middle and upper-middle class households. New formats like super markets and large discount and department stores have started influencing the traditional looks of bookstores, furnishing stores and chemist shops. The retail revolution, apart from bringing in sweeping, positive changes in the quality of life in the metros and bigger towns, is also bringing in slow changes in lifestyle in the smaller towns of India. Increase in literacy, exposure to media, greater availability and penetration of a variety of consumer goods into the interiors of the country, have all resulted in narrowing down the spending differences between the consumers of larger metros and those of smaller towns.

This research shows that consumers are spending sufficient time and are traveling considerable distances to travel to retail malls of their choice. This indicates that their involvement while making choice for retail outlets is high. This fact should be given due consideration while designing the Marketing Mix elements for retail businesses.

Consumer satisfaction is lower when it comes to service related aspects in Retail outlets. As the business is getting more competitive this aspect may become important in choosing retail outlets. Staff motivation and training should be give due importance
Many consumers had problems with lay out of the retail outlets. Lay outs should be scientifically planned keeping in mind consumer behavior and preferences

Some retail outlets at times stock too much variety this may at times confuse the consumer.

Word of mouth communication emerged as an important tool for communication. This shows that retail businesses should stress upon giving consumers good experience while they are there in the malls. Publicity can also be used

Research shows that most of the people coming at retail outlets are conscious about value for money. Supply of quality real estate space would be instrumental in propelling the future growth momentum of the retail sector in India. The addition of better and affordable retail space would enable retailers to deliver more better-quality products and services to the consumers, resulting in increase in operational efficiencies and decline in costs for the supply chain.

Accordance of ‘industry status’ to retail in India is an issue that needs to be addressed soon. Recognition would ease financing prospects, as well as standardize and unify taxes for the industry. An alignment of the retail sector with the tourism sector could also promote India as a global shopping hub.

The growth of the organized retail industry in the country will mean thousands of new jobs, increasing income levels and living standards, better products, and services, a better shopping experience, and more social activities.

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- www.atkarney.com
REFORM OF THE LAW RELATING TO DIRECTORS’ DUTIES IN MALAYSIA

Sujata Balan
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ABSTRACT

The Malaysian legislature recently passed the Companies (Amendment) Act 2007 which introduced significant and far-reaching changes for Malaysian companies. In particular, important changes were made to the law relating to directors’ statutory and common law duties. Among the changes are the codification of certain common law principles relating to directors’ duties and the introduction of new concepts such as the Business Judgement Rule. There is also an attempt to provide statutory clarification as to the role and function of the board of directors in a company.

The central theme of these amendments appears to be the implementation of a strong and effective corporate governance regime in Malaysia. Needless to say, these reforms are consistent with the objective of the Malaysian corporate law reform programme to modernise the present legislative framework and to facilitate an effective and competitive business environment in Malaysia. This paper examines some of the provisions in the Companies (Amendment) Act 2007 which relate to directors’ statutory and common law duties and considers their implications on the corporate law regime in Malaysia.

INTRODUCTION

Malaysian legislation relating to companies has always been vibrant and progressive. Since 1965 the Companies Act 1965 (hereafter referred to as the principal Act) has been amended no less than seventeen times. The year 2007 witnessed the enactment of another Amendment Act, the Companies (Amendment) Act 2007 (Act A1299) (hereafter referred to as “Act A1299”). Act A1299, which came into effect on 15 August 2007, is a major milestone in the history of company law legislation in Malaysia. It creates amendments, substitutions and new provisions which will have a significant and wide reaching effect, principally on directors. The central theme of Act A1299 appears to be the implementation of a strong and effective corporate
governance regime. Its contents mirror to a great extent the recommendations of the High Level Finance Committee Report on Corporate Governance which was published in 1999, soon after the calamitous financial storm that swept across Asia in the period 1997-1998.

In this paper, the writer aims to examine some of the changes brought about to directors’ statutory and common law duties in Malaysia by Act A1299. It must be mentioned that Act A1299 also deals with matters other than directors’ duties and that those matters are not dealt with in this paper.

The relevant provisions affecting directors’ duties are discussed, in parts II- XVIII below.

**SECTION 132 OF THE COMPANIES ACT 1965 - DIRECTORS’ FIDUCIARY DUTIES AND DUTIES OF CARE AND SKILL**

Before Act A1299, section 132(1) of the principal Act contained a feeble and inadequate attempt to state in statutory form, directors’ fiduciary duties and their duties of care and skill. The said provision reads:

(1) A director shall at all times act honestly and use reasonable diligence in the discharge of the duties of his office.

The words “honestly” and “diligence” were never adequately determined by case law in Malaysia. In practice Malaysian courts have shown little enthusiasm to utilise this provision as a guide to decide on matters relating to directors fiduciary duties and duties relating to care and skill. Instead most cases have shown their readiness to seek the aid of the rich English case law on the subject. In this context, it may be noted that the courts were entitled to use such cases by virtue of s 132(5). This is because s 132(5) reads, “This section is in addition to and not in derogation of any other written law or rule of law relating to the duty or liability of the directors or officers of the company”.

The High Level Finance Committee Report on Corporate Governance recognised the area of directors’ fiduciary duties as one which was “crucially important”. One of its recommendations was that legislation should be enacted to “set out clearly the obligations of directors in their dealings with the company in conflict situations, and the ways in which such conflicts may be managed without detriment to the company”. Its principal recommendation in this area was that the common law fiduciary duty to avoid conflicts of interest should be codified into statutory form.
The recommendations of the Committee have, to some extent, been implemented with the enactment of new provisions substituting the existing provisions in ss 132(1) and 132(2).

A. Contents of the Substituted Section 132(1)

The contents of s 132(1) have been substituted to read as follows:

(1) A director of a company shall at all times exercise his powers for a proper purpose and in good faith in the best interest of the company.

It is well established at common law and equity that directors must act in good faith in what they consider is in the best interest of the company. Added to this is the closely associated rule that directors must exercise their powers for a proper purpose. It is submitted that the new contents of s 132(1) will add nothing new to the existing common law and equity on the subject as it is well established by case law, that directors are fiduciaries and that the powers conferred on them must be exercised bona fide in the interest of the company and not for “some private advantage or for any purpose foreign to the power”. It may also be noted that the new s 132(1) is restricted to the exercise of powers and makes no specific reference to acts of directors. It is submitted that a more comprehensive effect could have been achieved by the legislature if the words “act, and” had been inserted between the word “times” and the word “exercise” in the new s 132(1).

A point to be noted is that neither the new s 132(1) nor any other amendment made by Act A1299 deals with another closely linked duty to the exercise of the powers of directors, namely that directors must always exercise independent judgment and that they must not fetter their discretion. Thus, where it is alleged in Malaysia that directors have in fact fettered their discretion, resort must be made to equity and common law. At common law the rule regarding this duty of directors to exercise independent judgment has been somewhat modified by Fulham Football Club Ltd v Cabra Estates plc, which, following the Australian case of Thorby v Goldberg, held that directors may enter into an agreement which in fact provides that they will act in a particular way in future, if at the time of the agreement, they bona fide consider that it is in the interest of the company to so fetter their discretion. Whether a similar approach will be adopted by the Malaysian courts remains to be seen.

B. Section 132(2) – Prohibitions Against Use Of Company’s Property, Etc.

Before Act A1299, the original s 132(2) provided that an officer (which by the definition in s 4 of the principal Act includes a director) or an agent of a company or an officer of the Stock Exchange shall not make an improper use of any information acquired by virtue of his position to gain directly or indirectly an advantage for himself or for any other person or cause detriment to the company. The provision made no reference to an improper use of a company’s property by a director or officer of the company. Also there was no specific reference to the expropriation of any
opportunity of the company which a director or officer became aware of. But, it is submitted that this omission did not exclude the expropriation or diversion of corporate opportunity from its ambit as such misdeeds almost invariably arose from the misuse of information acquired by virtue of a director’s or officer’s position. Also, before Act A1299, the principal Act did not deal with the thorny issue of whether any breach of fiduciary duty could be ratified by the members in a general meeting, or with the question whether directors could engage in business which is in competition with the company.

Act A1299 amends s 132(2) by replacing the existing subsection with the following:

Prohibition against improper use of the company’s property, position, corporate opportunity or competing with the company

(2) A director or officer of a company shall not, without the consent or ratification of a general meeting

- a) use the property of the company;
- b) use any information acquired by virtue of his position as a director or officer of the company;
- c) use his position as such director or officer;
- d) use any opportunity of the company which he became aware of, in the performance of his functions as the director or officer of the company; or
- e) engage in business which is in competition with the company, to gain directly or indirectly, a benefit for himself or any other person, or cause detriment to the company.

The wording of s 132(2) in the form enacted raises a number of significant questions and these are dealt with below. At the outset, it may be noted that the five transgressions listed in s 132(2)(a) to (e) are only prohibited without the consent or ratification of a general meeting and if they are made to gain directly or indirectly a benefit for the director or any other person or cause detriment to the company.

C. Significance of the Words “Shall Not Without the Consent or Ratification of a General Meeting”

The words “shall not without the consent or ratification of a general meeting” suggest that the prohibitions listed in s 132(2) may not be wrongdoings if they are consented to or ratified by the general meeting. At common law, a valid consent or ratification of the general meeting regarding a wrongful conduct of a director, may amount to a decision not to sue him in respect of that wrongful conduct. Thus an effective consent or ratification of a wrongdoing may adversely affect a future suit against a director by the company, or a derivative action by members, regarding that wrongdoing. A crucial question, therefore, is whether there are any limitations placed on the general meeting
when it purports to ratify or give its consent to the prohibitions in the new s 132(2). Unfortunately, the section is silent on this point.

At common law, the general meeting may to some extent release directors from their fiduciary obligations but there are limits to the exercise of the power. It is difficult to state the limitations placed on the general meeting at common law when the general meeting purports to consent to or ratify a wrongdoing by directors. But the legal position regarding a consent or ratification obtained by the use of the votes of wrongdoers or those under their influence is fairly clear in cases which can be classified as “fraud on the company” or a “fraud on the minority”. Such ratification will not release the wrongdoers from liability. Although the real meaning of the aforesaid expressions has never been settled, it is clear that they include a wrongful act which amounts to an expropriation of the company’s property or the company’s opportunity or where the expropriation involves members’ property.

Reverting to items (a), (b), (c) and (d) of s 132(2), the use by a director for gain of the property of the company, or information acquired by virtue of his position or a corporate opportunity which the company could have utilised for its profit may amount to a fraud on the minority or a fraud on the company and may give grounds for a suit by the company or a derivative suit by members. The reason for allowing the general meeting to consent to or ratify the transgressions mentioned above is not clear. In providing for ratification or consent, it is possible that the legislature intended that such ratification or consent is to be given by independent shareholders not involved directly or indirectly in the wrongdoing but there is no clue as to whether such or other restraints are placed on the general meeting. It is submitted that, as a measure of protection for the company and its minority members, the legislature should have made it clear that a consent or ratification referred to in s 132(2) would be ineffective unless it was achieved without the votes of wrongdoers or of those who were under their influence or who had a personal interest in condoning the wrong. It may also be mentioned that as s 132 (2) does not specify the type of resolution required for a consent or ratification, an ordinary resolution (which may not be difficult to obtain) may be sufficient.

D. Link between S 132(2) and the New Statutory Derivative Action Created by Act A1299

At this point, reference must be made to the new ss 181A to 181E inserted into the principal Act by Act A1299 and which create a statutory derivative action for the benefit of the members and the other complainants listed in s 181A(4). Under s 181A (1), this statutory action is only possible with the leave of the court. Section 181B(4) provides that the court in deciding whether or not leave shall be granted shall take into account whether the complainant is acting in good faith and whether it appears prima facie to be in the best interest of the company that the application be granted. More importantly, where there is a ratification of a director’s wrongdoing its effect is dealt with in s 181D which reads:
If members of a company, ratify or approve the conduct, the subject matter of the action-

a) the ratification or approval does not prevent any person from bringing, intervening in or defending proceedings with the leave of court;

b) the application for leave or action brought or intervened in shall not be stayed or dismissed by reason only of the ratification or approval; and

c) the Court may take into account the ratification or approval in determining what order to make.

Reverting once more to s 132(2), the ratification referred to in it will not prevent a member from bringing a statutory derivative action with the leave of the court under the new provisions. However, under s 181D(c), the court may take into account the ratification in determining what order it would make. The factors that the court will take into account are not clear. A possibility is that the court may not recognise a ratification of an act which at common law amounts to a fraud on the minority or a fraud on the company. Another possibility is that the court may not give effect to ratification unless it was achieved by the votes of independent members with no direct or indirect link to the alleged wrongdoers.

It must also be noted that the common law derivative action appears to be preserved by the new s 181A (3) which states:

The right of any person to bring, intervene in, defend or discontinue any proceedings on behalf of a company at common law is not abrogated.

The difficulties of the common law derivative action have made it an unattractive remedy for members. It is hoped that the courts will interpret the new provisions liberally free of the hurdles encountered by plaintiffs at common law. It must also be mentioned that the introduction of the new statutory derivative action will not affect a member’s right to present a petition under s 181(1) where he alleges that a ratification of the prohibitions in s 132(2) amount to one of the grounds mentioned in s 181(1), namely that they amount to oppression, disregard of interests, unfair discrimination or prejudice.

E. Director Engaging In Competing Business

Reference must once more be made to s 132(2)(e) which provides that a director shall not, “engage in business which is in competition with the company”. At common law it was never entirely clear whether a director could compete with his company. The cases usually relied on to state that he could, actually involved competing directorships. The effect of these cases was that directors of a company were, subject to the articles of association, allowed to be members of a rival board provided they did not disclose confidential information of the first company to the second.
After the enactment of s 132(2)(e), a director may not, without the consent or ratification of a general meeting, engage in a business enterprise which is in competition with the business of his company. The degree and scope of his engagement for the purpose of this prohibition is unclear. Secondly, Act A1299 offers no clue in relation to the question whether directors do “engage in business which is in competition with the company” when they accept directorships in a rival company. It is unlikely that the prohibition in s 132(2)(e) includes competing directorships, but the possibility of it being construed otherwise by the court cannot be ruled out.

The effect of the new provision is that a general meeting may consent to or ratify a business activity of the directors which is in competition with the company. Where directors do engage in a competing business activity there is a possibility that they can cause serious harm to the company and its members. As in the case of a consent or ratification of the prohibitions stated in s 132(2)(a) to (d) there is no indication in the section whether there are limits which are applicable where a general meeting gives its consent or makes a ratification of a breach of the said prohibitions. The comments and observations made earlier regarding ratification of the prohibition in s 132(2) (a) to (d) in part II sub-part C of this paper are also relevant in this case.

F. Voting By an Interested Director

Another associated question not dealt with by Act A1299 is whether the affected director may vote when a proposed resolution to ratify any of the prohibitions listed in sub-sections (a) – (e) of s 132(2) is tabled before the general meeting. The traditional rule is that votes of shareholders are proprietary rights and the member is free to vote as he likes, even though he has an interest in the matter voted on. The rule should not apply to a shareholder-director in respect of the prohibitions mentioned above as it is possible for some of them to be cases of fraud on the company or fraud on the minority. This is clearly illustrated in Cook v Deeks. A further pertinent issue which Act A1299 does not address, is whether a director may vote if there is no fraud on the minority or fraud on the company. The writer is of the opinion that Act A1299 should have made it clear that an interested person (which will include the affected director) should not under any circumstances, whether or not there is a fraud on the company or a fraud on the minority, be allowed to vote on a resolution to ratify a breach of s 132(2) (a)-(e). It is important that a resolution to ratify a wrongdoing should be passed by disinterested members free of any influence, direct or indirect, of the wrongdoers.

Finally it must be mentioned that the expression ‘director’ has, for the purpose of s 132, been extended by the new s 132 (6) to include “the chief executive officer, the chief operating officer, the chief financial controller or any other person primarily responsible for the operations or financial management of a company, by whatever name called”. Thus the net has been spread much wider in order to catch other functionaries involved in senior management of a company.
SECTION 132(1A) OF THE COMPANIES ACT 1965– DIRECTORS’ DUTIES OF CARE, SKILL AND DILIGENCE

The common law took an indulgent attitude to this subject and the law was never developed with clarity or precision, or to deal with the increasing professionalism of directors. The traditional starting point of any discussion of the common law has always been Romer J’s historic, but much criticized, three propositions in Re City Equitable Fire Insurance Company. The first of these relates to the degree of skill which a director must display in the discharge of his duties. On this Romer J said,

A director need not exhibit in the performance of his duties a greater degree of skill than may reasonably be expected from a person of his knowledge and experience.

This slack subjective standard has been disparaged by commentators and judges as to be of little value. Under the test, a director with little or no skill or little or no experience stood a better chance of escaping liability. It did not encourage directors to acquire skills or experience.

In recent years, there has been a visible departure in English case law from the lenient standard of Romer J’s first proposition. Re D’Jan of London Ltd indicated a new approach to a director’s standard of care. In that case, Hoffman J accepted the standard stated in s 214(4) of the Insolvency Act 1986 of England. His Lordship was of the view that the standard required by this section correctly stated the common law duty owed by a director to his company. This was unusual in that a statutory standard which was enacted for wrongful trading was applied in a common law case of director’s alleged negligence. In Hoffman J’s words,

In my view, the duty of care owed by a director at common law is accurately stated in s 214 (4) of the Insolvency Act 1986. It is the conduct of–

‘a reasonably diligent person having both – (a) the general knowledge, skill and experience that may reasonably be expected of a person carrying out the same functions as are carried out by that director in relation to the company, and (b) the general knowledge, skill and experience that director has.’

This new development has been praised by the Law Commission in England as “a remarkable example of the modernisation of the law by the judges”. The Companies Act 2006 of England now provides a new section 174 modelled on this dual or twofold objective/subjective standard.
In Malaysia, there was a limited statutory recognition of directors’ duty to show diligence in the original s 132(1), which provided that a director shall “use reasonable diligence in the discharge of the duties of his office”. This statutory provision was never developed by the Malaysian courts. On the other hand, it appears to be generally assumed that the propositions of Romer J applied.\textsuperscript{xxxv} In 1999, the High Level Finance Committee Report on Corporate Governance recognised the importance of the subject and recommended that s 132(1) should be amended to incorporate the duties of skill and care of directors but that the section “should NOT\textsuperscript{xxxvi} be amended to clarify that the standard of care imposed is with reference to the particular circumstances of the director”.\textsuperscript{xxxvii}

Act A1299 now amends the principal Act by inserting immediately after s 132(1), the following:

(1A) A director of a company shall exercise reasonable care, skill and diligence with-

(a) the knowledge, skill and experience which may reasonably be expected of a director having the same responsibilities; and
(b) any additional knowledge, skill and experience which the director in fact has.

The statement in s 132(1A) reflects the dual or twofold standard which has been advocated in England. The first part of the standard is an objective standard which today becomes the minimum benchmark for directors. If the director does not meet this standard, the second subjective test need not be considered. Where a director does meet the first objective standard, he may still be liable if he fails to meet the subjective standard in the second part, which is based on any additional knowledge, skill and experience which the director in fact has.

This new statutory statement of the standard of care of directors is most welcome. Although the courts in Malaysia may ultimately by judicial law-making arrive at a somewhat similar position, the evolution process may be slow\textsuperscript{xxxviii} and may take many years.

\textbf{SECTION 132(1E) OF THE COMPANIES ACT 1965 - NOMINEE DIRECTORS}

Common examples of nominee directors are directors who are nominated by a majority shareholder or a debenture holder. A nominee director may be put in an extremely difficult position when his duty to his company and his obligations to his nominator are in conflict. English common law has taken a strict stand over this matter and this is reflected in the House of Lords’ case of \textit{Scottish Cooperative Wholesale Society Ltd v Meyer}\textsuperscript{xxxix} and decision of the Privy Council in \textit{Kuwait Asia Bank EC v National Mutual Life Nominees Ltd.}\textsuperscript{xl} Under English common law the duties of a nominee director are no different from that of an ordinary director. A
nominee director’s first duty is to his company and he must not allow this duty to be compromised by taking into account the interests of his nominator.

The difficulty involved in asking nominee directors to put aside the interests of their nominator was recognised in other common law jurisdictions. For instance, Jacobs J in the Australian case of Re Broadcasting Station 2 GB Pty Ltd,32 was of the opinion that a nominee director may take into account his nominators’ interest if he honestly believed that the nominator’s interest corresponded with the interest of the company.33 In the New Zealand case of Berlei Hestia (N.Z) Ltd v Fernybough34 Mahon J said,35

The stage has already been reached according to some commentators where nominee directors will be absolved from suggested breach of duty to the company merely because they act in furtherance of the interests of their appointers, provided their conduct accords with a bona fide belief that the interests of the corporate entity are likewise being advanced.

In Oversea Chinese Banking Corp Ltd and another v Justlogin Pte Ltd36 Chao Hick Tin JA in the Court of Appeal of Singapore after referring to the strict rule that the duty of the nominee director is no different from that of an ordinary director said,

But that is not to say that a nominee director must act against the interest of his appointor. A nominee director may take into account the interest of his appointor if such interest does not conflict with the interest of the company; see Kumagai Gumi Co Ltd v Zenecon Pte Ltd [1995] 2 SLR 297 at 315 [58]. The court will only interfere if it is of the view that no reasonable director would consider the action taken to be in the interest of the company.

Another Australian case, Levin v Clark,37 illustrates that the terms or special circumstances under which a company accepted a nominee director may be construed as a waiver by the company of the strict requirements imposed by the common law upon a nominee director. Few would hesitate to commend the practical, sensible and realistic approach in these cases.

In addition, some common law jurisdictions have created special statutory exceptions38 to the strict common law rule. For example, statute may, subject to certain conditions being met, permit a director of a wholly owned subsidiary to act in the interests of its holding company.
There is a dearth of Malaysian case law on this subject but the legal position may now be considered to be reasonably clear following the enactment of Act A1299 which adds a new subsection (1E) to s 132. The new provision reads:

(1E) A director, who was appointed by virtue of his position as an employee of a company, or who was appointed by or as a representative of a shareholder, employer or debenture holder, shall act in the best interest of the company and in the event of any conflict between his duty to act in the best interest of the company and his duty to his nominator, he shall not subordinate his duty to act in the best interest of the company to his duty to his nominator.

It is noted that s 132(1E) lists the categories of nominee directors who come under the section’s ambit. The list is wide enough to cover the usual kind of nominee director. The duty imposed by the new provision is similar to the duty under the common law. Whether the section will be interpreted liberally or strictly by the courts remains to be seen. A point to note is that the new provision makes no exception. The strict rule seemingly applies even in the case of the director of a wholly owned subsidiary. However, a possible, but limited, escape route is the wording of the section, which is that a nominee director “shall not subordinate his duty to act in the best interest of the company to his duty to his nominator”. Thus it is arguable that he may, as was stated in the Australian and New Zealand case law mentioned above, act in the interest of his nominator provided that his act also advances the interest of the company or does not conflict with his duty to the company.

SECTIONS 132(1C) AND 132(1D) OF THE COMPANIES ACT 1965 – RELIANCE ON INFORMATION PROVIDED BY OTHERS

It is unavoidable that in exercising their powers, or in carrying out their functions, directors have to rely on information provided by others. Both the High Level Finance Committee Report on Corporate Governance and the Corporate Law Reform Committee recognized the importance of allowing directors to rely on others in order to obtain information. The High Level Finance Committee Report pointed out that if directors are unable to rely on others to obtain information, they would be forced to make detailed and exhaustive inquiries into every matter and as a result delay the decision-making process.

Act A1299 inserts a new subsection (1C) that provides that a director may rely on information, professional or expert advice, opinions, reports or statements including financial statements or other financial data prepared, presented or made by the person mentioned in the subsection. The persons are, (i) an officer of the company whom the director believes on reasonable grounds to be reliable and competent in respect of the matters concerned, (ii) any other person retained by the company in connection with matters involving skills or expertise, where the directors believe on reasonable grounds that the matters concerned are within the persons’ professional or expert competence, (iii) another director concerning matters within that directors’ authority
or (iv) any committee of the board (on which the delegating director did not serve) concerning matters within that committee’s authority.

It is clear from an ensuing new subsection (1D) that blind reliance, reliance without inquiry or reliance without independently weighing the relevant information will not protect the director. This new provision creates two requirements that must be fulfilled if reliance is deemed to have been made on reasonable grounds. First, the reliance must be made in good faith. Secondly, the reliance must have been made after making an independent assessment of the information, advice, opinion, report, statement or financial data having regard to the directors’ knowledge of the company and the complexity of its structure and operation.

These new developments are fairly reliable indicators on when directors can rely on information provided by others.

SECTION 132(1F) AND 132(1G) OF THE COMPANIES ACT 1965 – DIRECTORS’ RIGHTS AND RESPONSIBILITIES IN RESPECT OF DELEGATION OF THEIR POWERS

Except in the case of small companies, delegation by the board of some of its management functions is inevitable. The third proposition of Romer J in Re City Equitable Fire Insurance dealt with directors’ powers of delegation. His Lordship said,

In respect of all duties that, having regard to the exigencies of business and the articles of association, may properly be left to some other official, a director is, in the absence of grounds for suspicion, justified in trusting that official to perform such duties honestly.

In England, it is now accepted that Romer J’s statement does not protect the directors when they had placed unqualified or blind reliance on the person to whom they had delegated their task. Also, delegation, even though made in good faith, does not release them from supervising the discharge of the function they had delegated. A director cannot delegate and abdicate all responsibility for the delegatee’s acts and omissions. In Malaysia, the High Level Finance Committee Report on Corporate Governance recommended that the directors’ power to delegate and the rule that they may rely on the information provided by others be put in statutory form. These recommendations are now implemented in Act A1299. Act A1299 amends the parent Act by inserting a new subsection (1F) to s 132 which reads:

(1F) Except as is otherwise provided by this Act, the memorandum or articles of association of the company or any resolution of the board of directors or
shareholders of the company, the directors may delegate any power of the
board of directors to any committee to the board of directors, director, officer,
employee, expert or any other person and where the directors have delegated
any power, the directors are responsible for the exercise of such power by the
delegatee as if such power had been exercised by the directors themselves.

At first sight, that part of s 132(1F) which provides that “the directors are responsible
for the exercise of such power by the delegatee as if such power had been exercised
by the directors themselves,” may appear to be overly rigorous in that it may appear to
make directors liable even though they had taken the necessary precautions to prevent
a wrongdoing by the delegatee. But this is not so, for an ensuing new subsection (1G)
provides that directors are not responsible under subsection (1F) if they believed, on
reasonable grounds, at all the times that the delegatee would use the power delegated
in conformity with the duties of the director under the principal Act and the
company’s constitution. An additional requirement is that the directors believed on
reasonable grounds and in good faith (and after making proper enquiries if the
circumstances warranted the need for one) that the delegatee was reliable and
competent to exercise the power delegated.

Neither s 132(1F) nor the ensuing subsection (1G) (discussed below) expressly say
that the power to delegate is subject to reasonable supervision or monitoring by the
directors. It is submitted that despite this omission, directors cannot escape liability
for the proper exercise of any of their functions by merely delegating their power in
good faith to a committee or one of the persons mentioned in the section. Malaysian
courts are likely to hold that directors are bound to monitor or supervise the exercise
of the functions delegated unless the circumstances indicate that supervision may be
reasonably excused.

Considered overall, the new subsections, (1F) and (1G) are useful additions to the
statutory law dealing with directors’ duties. Whilst recognising in statutory form that
the directors can delegate their powers the new subsections impose requirements
which attempt to ensure that the exercise of the power of delegation is responsible,
honest and informed. These new provisions will serve to promote effective corporate
governance.

SECTION 132(1B) - BUSINESS JUDGMENT RULE

The board of a company involved in a commercial enterprise cannot totally avoid
making business judgments that involve risk taking. Most business opportunities
available to a company, come inevitably with the attendant risk that the opportunity, if
exploited, may go wrong and cause loss to the company. No one will deny that it is
proper to protect the directors over a business judgment that has gone wrong if they
had exercised their judgment with responsibility, honesty and in the best interest of
the company.
The High Level Finance Committee Report on Corporate Governance noted the existence of a business judgment rule to protect directors in the United States and Australia and recommended the enactment of a statutory provision on the subject.

Act A1299 now incorporates a business judgment rule modelled on s 180(2) of the Australian Corporations Act 2001 by inserting a new subsection (1B) in s 132. The new provision reads as follows:

(1B) A director who makes a business judgment is deemed to meet the requirements of the duty under subsection (1A) and the equivalent duties under the common law and in equity if the director-
(a) makes the business judgment in good faith for a proper purpose;
(b) does not have a material personal interest in the subject matter of the business judgment;
(c) is informed about the subject matter of the business judgment to the extent the director reasonably believes to be appropriate under the circumstances; and
(d) reasonably believes that the business judgment is in the best interest of the company.

At the outset, reference must be made to the definition of “business judgment” in a new provision in s 132(6). This provides that business judgment means “any decision on whether or not to take action in respect of a matter relevant to the business of the company”. This was probably enacted to cover both acts and omissions in relation to a business decision. The writer would submit that the wording of the definition is not comprehensive. The wording creates some doubt as to whether the definition covers all decisions in relation to the business activity of the company or only covers decisions as to whether to take or not to take action in respect of a matter. It is suggested that a better alternative would be one with the word “includes” before the words “any decision” or a definition without the words “whether or not to take action” so that it would cover every decision in relation to the business of the company.

It may be noted that a director only enjoys the protection of the business judgment rule if he does not have a “material” personal interest in the subject-matter of the business judgment but there is ambiguity as to when an interest will be “material”.

The enactment of the business judgment rule as part of the principal Act is a welcome development. Courts have traditionally demonstrated a reluctance to assess or judge the wisdom of business and management decisions by directors. The new provision will enable both the board and the court to determine when a business judgment will protect directors from a suit if their business judgment has gone wrong and caused loss to the company.
As indicated above, the common law courts have shown disinclination to question directors’ business judgments and management decisions and this is reflected in the new statutory provisions. At this stage it is not clear how far the courts will go in using the rule to protect directors. A pertinent question which may confront the court in the future is whether, despite the business judgment rule, courts may still examine directors’ business judgments where they have made a grave error in their decision making process thus raising doubts as to their good faith. It is to be noted that if the director satisfies the requirements of subsection 1B, he is deemed “to meet the requirements of the duty under subsection 1A and the equivalent duties under the common law and in equity”. The duty under s 132(1A) was discussed earlier in part II of this paper.

**SECTION 131 OF THE COMPANIES ACT 1965 – DISCLOSURE OF DIRECTORS’ INTERESTS IN CONTRACTS**

Section 131(1) of the principal Act imposes a duty on every director who is in any way, whether directly or indirectly, interested in a contract or proposed contract with the company to disclose his interest at a meeting of the directors of the company. The disclosure must be made as soon as practicable after the relevant facts have come to his knowledge. Failure to comply with s 131(1) is a criminal offence with a penalty of imprisonment for seven years or a fine of one hundred and fifty thousand ringgit or both.

A. Addition Of A New Subsection To Deal With The Interest Of A Spouse Or Child Of A Director

Section 131 is amended by the addition of a new subsection (7A) which reads:

For the purpose of this section, an interest of the spouse of a director of a company (not being herself or himself a director of the company) and an interest of a child, including adopted child or stepchild, of a director of the company (not being himself or herself a director of the company) in the shares or debenture of the company, shall be treated as an interest in the contract and proposed contract.

The categories of family members specified in the new provision appear to be exhaustive and one may question the need for restricting the list to these limited persons.

Further, the interpretation of this section is bound to cause difficulties. It is to be noted that the interest of the family members referred to in the new sub-section is the interest in the shares or debentures of “the company”, and the phrase, “the company” appears to refer to the company of the director concerned, and not to the other contracting party where the other party is a company. The need for such disclosure is not clear as one would have thought that the interest of the spouse or child in the other contracting party is the relevant interest for the purpose of s 131(1).
Statement of the Bill for Act A1299 states that the intention of the amendment is “to provide that the interest of a spouse and a child including adopted child and step-child is included in the interests that a director must disclose under section 131”. It is respectfully submitted that the wording of the amendment does not reflect this explanation. This is because the interest which a director must disclose to prevent contravention of s 131(1) is not his interest in his own company but his interest in respect of the other contracting party. Again, the degree or level of interest in the shares or debentures is not specified. On a strict interpretation of the new provision, disclosure may be necessary even if the interest is minimal. This difficulty of determining the level or extent of interest for the purpose of disclosure has been a feature of s 131 from the date of its inception. It is submitted that even the addition of the word “material” before the word “interest” would not have totally removed the difficulty for this would simply raise the enquiry as to what level or degree of holding would be deemed to be material. This, it is submitted, is the problem faced with the construction of another component of s 131, namely, s 131(2). This section exempts a director from disclosure where his interest consists only of being a member or creditor of the other contracting party, where the other party is a corporation, “if the interest of the director may properly be regarded as not being a material interest”. The word “material” is not defined in s 131 or in s 4, the definition section of the principal Act.

The writer would have preferred greater clarity in the drafting of s 131 for a breach of the section is a criminal offence carrying severe penalties.

B. Addition of a New Subsection to Provide for a Civil Remedy

Before s 131 was amended by Act A1299 the said section did not contain any provision which dealt directly with the civil consequences which followed its breach. Act A1299 now adds a new subsection (7B) to s 131. This subsection makes a contract entered into in contravention of s 131 voidable at the instance of the company. The new subsection creates a happy situation for the company which may elect to adopt a favourable contract even though it is tainted by a transgression of s 131. The same new section puts a restraint on the company’s right to rescind the contract by creating an exception which applies where the tainted contract is “in favour of any person dealing with the company for valuable consideration and without any actual notice of the contravention”. Thus it appears that an outsider who satisfies the requirements mentioned in the exception may enforce a contract which infringes s 131 even if the terms do not favour the company.

It is noted that subsection (7B) uses the expression “actual notice”. This, it is submitted, is beneficial to an outsider involved in a contract to which s 131 applies because it appears to shut out constructive notice of the fact that s 131 is being breached. One may argue that the words, ‘actual notice’ may even protect an outsider who is put on inquiry that s 131 is being contravened, and that this is not desirable. The writer would have preferred the use of the expression “in good faith and without notice”, so as to make good faith an essential element of subsection (7B).
Subsection (7B) does not state that *restitutio in integrum* is a requirement before the company may avoid the contract. It was not necessary for it to say so because when a party opts to rescind a voidable contract, s 65 of the Contracts Act of Malaysia 1950 will apply. Under s 65 the party rescinding a voidable contract, shall, if he has received any benefit thereunder from the other party, restore the benefit to the party from whom it was received.

Finally, it is submitted that the word “debenture” in the expression “shares and debenture” in the new provision appears to be an inadvertent error. It should be “debentures” as the persons mentioned in the section may have an interest in more than one debenture.

**SECTION 131A OF THE COMPANIES ACT 1965 – VOTING AND PARTICIPATION AT A BOARD MEETING OF A DIRECTOR WHO IS INTERESTED IN A CONTRACT OR A PROPOSED CONTRACT**

Act A1299 addresses two important questions which were not dealt with in the principal Act. The first was whether a director interested in a contract within the meaning of s 131 could participate in the relevant discussion at a board meeting. The second was whether such director may vote on a board resolution pertaining to the contract. Probably it was thought that these matters could be properly left to the articles of association. In this context, article 81 of Table A of the Fourth Schedule to the principal Act 1965 does provide that such a director shall not vote at the relevant board meeting and if he does vote, his vote shall not be counted. Article 81 does not say that a director may not participate in the discussion at the board meeting. However, Table A is not (and never was) of universal application and companies are (and were) free to exclude or modify article 81.

A. Addition of a New Section to Bar an Interested Director from Voting and Participating at Board Meetings

Act A1299 now alters the legal position by creating a new section 131A which provides that in the situation mentioned above, the director concerned “shall be counted only to make the quorum at the board meeting but shall not participate in any discussion while the contract or proposed contract is being considered at the board meeting and shall not vote on the contract or proposed contract”. The new section allows the interested director to be present at the board meeting although he cannot participate in the discussion or vote on a resolution adopting the contract. In the opinion of the writer, the preferred position would have been to exclude his presence at the time of the relevant debate and voting on the proposed resolution, as a director may be able to influence the board by his mere presence.
Section 131A (2) provides for four exceptions where the prohibitions in s 131A (1) do not apply. They are: (i) in the case of a private company which is not a subsidiary to a public company; (ii) in the case of a private company which is a wholly owned subsidiary of a public company in respect of its contract or proposed contract with the said holding company or with another wholly-owned subsidiary of the same holding company.; (iii) in respect of any contract or proposed contract of indemnity against any loss which any director may suffer by reason of becoming or being a surety for a company; and (iv) in the case of a contract or proposed contract by a public company or a private company which is a subsidiary of a public company with another company in which the interest of the director concerned consists solely of:

(a) in him being a director of that company and the holder of shares not more than that required as his share qualification, or
(b) in him having an interest in not more than five per centum of that company’s paid up capital.

The writer wishes to point out that even where the exceptions enumerated in s 131A(2) apply, a company should not assume that it may allow a director to participate or vote at a board meeting in relation to a contract in which he is interested. This is because the relevant company will still be subject to restrictions, if any, in its memorandum and articles of association. Thus, for example, where a private company which is not a subsidiary of a public company has adopted article 81 of Table A, a director shall not vote though he may participate, at a board meeting in respect of a contract or proposed contract in which he is interested.

It is also to be noted that Act A1299 makes no amendment to article 81 of Table A. Therefore a company to which the exceptions stated above do not apply must be wary of the fact that if it adopts article 81 of Table A, part of the article will conflict with section 131A because while the said article forbids voting, it does not expressly forbid participation in the discussion.

B. Civil and Criminal Sanctions for a Breach of Section 131A

Section 131A (3) provides civil consequences for a breach of s 131A (1). These civil consequences are substantially similar to the position in the new s 131(7B) for a breach of s 131(1) discussed above. It provides the same protection for a person dealing with the company for a valuable consideration and without any “actual notice” of the contravention of s 131A (1). The comments made earlier regarding actual notice in relation to section 131(7B) in part VII above, regarding s 131(7B) also apply to section s 131A (3).

Finally, it may be mentioned that under s 131A (4), a director who knowingly contravenes s 131A shall be guilty of a criminal offence the penalty for is imprisonment for five years or a fine of one hundred and fifty thousand ringgit or both.
SECTION 131B OF THE COMPANIES ACT 1965 - FUNCTIONS AND POWERS OF THE BOARD

Section 131B is another new provision inserted into the principal Act by Act A1299. Subsection (1) of the section provides that “the business and affairs of a company must be managed by, or under the direction of, the board of directors”. The purpose of this provision appears to give statutory recognition and statutory force to the commonly accepted rule that the board’s primary function is to manage or oversee the conduct of the company’s undertaking. Similar legislation to codify this primary function of the board to manage, supervise, direct and assume responsibility for the operation of the company’s affairs and business has been enacted in some common law jurisdictions. The new provision implements the recommendation in the High Level Finance Committee Report on Corporate Governance that the board’s duty to oversee the conduct of the company's business and its “power” to manage the company should be given statutory force. The writer would readily agree with the Committee’s view that a statutory reiteration in the form enacted in s 131B (1) would bring advantages in that; it is a clear statement to the board as to its responsibilities and a clear direction to the courts of the collective functions and duties of the board.

In large companies the board will inevitably have to delegate some of its management functions to others. In such cases it cannot abdicate its duty to supervise the discharge of the functions delegated. That the board need not factually manage the company, and if it does not do so, that it has a duty to direct and supervise, is reflected in the words “be managed by or under the direction of the board of directors”. The board must, at the least, ensure that the company’s business and affairs are conducted under its direction and supervision.

A. New Statutory Provision Recognizing The Board’s Powers Of Management And Supervision

The High Level Finance Committee’s recommendation that the board’s power to manage the company be given statutory force is implemented in a new section 131B (2) which provide as follows:-

The board of directors has all the powers necessary for managing and for directing and supervising the management of the business and affairs of the company subject to any modification, exception or limitation contained in this Act or in the memorandum or articles of association of the company.

The articles of association of a company will almost always give powers of supervision and management to the board and the usefulness of this section may be questioned. However it may serve as a reminder to directors and outsiders that the
powers of management are still subject to any modification, exception or limitation contained in the Act or in the memorandum or articles of association of the company.

B. Relationship of the New S 131B (2) To Table A Article 73 on Management Powers of the Board

The subject of the board’s power of management under the new s 131B has a link to article 73 of Table A and some remarks on the said article may be pertinent. This article, which is commonly adopted by many companies, provides that “the business of the company shall be managed by the directors who…may exercise all such powers of the company as are not, by the Act or by these regulations, required to be exercised by the company in general meeting, subject, nevertheless, to any of these regulations, to the provisions of the Act, and to such regulations, being not inconsistent with the aforesaid regulations or provisions, as may be prescribed by the company in general meeting.”

Reverting once more to the statutory power expressed in s 131B (2), it was noted that the powers conferred on the board are subject to modification, exception and limitation in the memorandum and articles. Thus, the said documents may reserve some management powers for the general meeting to exercise, even though they are management powers that the board may exercise. More importantly, it is clear that the new provision does not prohibit a specific power in the memorandum or articles which purports to allow the general meeting to interfere in the management of a company by the passing of a resolution, whether ordinary or special. This matter is particularly relevant where there is a conflict between the board and the company in general meeting over the division of powers between these two organs. In this context, there is strong authority that where the articles give powers of management to the board, the general meeting cannot interfere with the exercise of those powers.\textsuperscript{lxix} Therefore, in the event of a conflict between the board and the general meeting, the relevant article dealing with the exercise of management powers, for example, Table A article 73, has to be carefully construed to determine the division of management powers between the two organs. Articles materially similar to article 73 were construed in a number of English and Malaysian cases as not permitting interference by the general meeting in matters of management.\textsuperscript{lx} A debate as to whether articles in the form of article 73 can be construed in this way began a hundred years ago and still continues.\textsuperscript{lxii} This is because the wording of article 73 and its ancestors is both ambiguous and inelegant.\textsuperscript{lxiii} One aspect of the debate which has arisen is whether the words towards the end of article 73, which read “and to such regulations… as may be prescribed by the company in general meeting…”, can be construed as empowering the general meeting to interfere in management by an ordinary resolution. But the weight of authority against such a construction appears overwhelming.\textsuperscript{lxiv} In England, the equivalent to article 73, namely, article 70 of the 1985 version of Table A makes the management powers given to the board subject “to any directions given by special resolution”. The English article 70 may have removed the alleged ambiguity in its predecessor and is a precedent which Malaysia may adopt. However article 70 may be criticised as strengthening the grip of
the board on management as the majority required to pass a special resolution may often be a difficult task for members to achieve.

It is regrettable that Act A1299 makes no amendment to Table A article 73 to free it from its controversies. If the article is adopted by a company, its board could, on the basis of current authority, ignore the directions of the company in general meeting over management matters which are not specifically reserved for the benefit of the general meeting by the Act or by the company’s constitution. Whether the present position should continue or whether Table A should be amended to give greater powers to the general meeting is also a debatable question in Malaysia.

This subject can be concluded by a final comment. Although the board may appear to enjoy near absolute powers where a company adopts a regulation similar to article 73, recalcitrant directors may be warned that they run the risk of a possible removal from their office by an exasperated general meeting, and this could be achieved in the case of a public company by an ordinary resolution.

CONCLUSIONS

Malaysia has always shown eagerness towards raising the standard and efficiency of the country’s corporate laws and corporate governance. The various amendments to the principal Act, the establishment of the High Level Finance Committee in 1999, the Companies Commission in 2001, and the Corporate Law Reform Committee in 2003 indicate Malaysia’s enthusiasm to achieve these noble and desirable purposes.

Act A1299 is yet another evidence of Malaysia’s commitment to strengthen its corporate laws and corporate governance. This paper has attempted to examine some of the major effects of Act A1299 on directors’ duties in Malaysia. Overall, the writer is of the view that the new legislation is a commendable attempt to strengthen the corporate laws of Malaysia. The changes made by Act A1299 will help to invigorate the existing legislation and enhance responsible management and good governance.

* This paper forms part of an article co-authored by this writer and ST Lingam, entitled “The Effects of the Companies (Amendment) Act 2007 On Directors’ Duties: Some Observations”.


2 Some of the cases where s 132 (1) was referred to are: Yeng Hing Enterprise Sdn Bhd v Datuk Dr Ong Poh Kah [1988] 2 MLJ 60; Simmah Timber Industries Sdn Bhd v David Low See Keat [1999] 5 MLJ 421 and Industrial Concrete Products v Concrete Engineering ProductsBhd [2001] 2 MLJ 332.

My emphasis.

See Ch 6 paras 2.2.25-2.2.31 of the Report. See also Consultative Document 5, CLRC at para 4.28.

Dixon J in Mills v Mills (1938) 60 CLR 150.

[194] 1 BCLC 363.


My emphasis.

See Regal (Hastings) Ltd v Gulliver [1967] 2 AC 134.

See Cook v Deeks [1916] 1 AC 554.

This arises because of the difficulty in reconciling some of the common law decisions and judicial dicta on the subject. It is difficult to summarise these decisions. Some appreciation of the difficulties will be evident from the decisions in Regal (Hastings) Ltd v Gulliver (see n 10, supra at p 150 of the judgment), Cook v Deeks, (ibid at p 564 of the judgment), Smith & Others v Croft (No 3) [1987] BCLC 355 at p 404 and Prudential Assurance Co Ltd v Newman Industries Ltd (No 2) [1981] Ch 257 at p 307. See in particular the statement of Vinelott J in Prudential that “there is no obvious limit to the power of the majority to authorize or ratify an act or transaction whatever its character provided that the majority does not have an interest which conflicts with the company”.

Some of the cases where the doctrine of fraud on the minority was applied were instances where the victim was the company itself. This paper uses the expressions “fraud on the company” and “fraud on the minority” to distinguish the position of the company from that of its minority shareholders.


The classic case is Cook v Deeks, supra n 25.

Brown v British Abrasive Wheel Ltd [1919] 1 Ch 290.

In this context see the recommendations of the Company Law Review Steering Group in England entitled, Modern Company Law For a Competitive Economy; Completing the Structure (URN00/1335) (London: DTI 2000) para 5.85.

In this context see s 175 of the Companies Act 2006 of England which, inter alia, deals with (a) the duty of a director to avoid a conflict of interest, (b) when a breach of such duty may arise, and (c) the machinery for obtaining “authorization” of a breach of such duty. See also ss 176, 180, 181 of the English Act which are relevant to the present discussion.

See sub-part C above.

The derivative action in Malaysia is dealt with in detail in Loh Siew Cheang, Corporate Powers Accountability (Kuala Lumpur: Lexis Nexis Butterworths, 2nd ed., 2002), Ch 35.

London & Mashonaland Exploration Co Ltd v New Mashonaland Exploration Co Ltd [1891] WN 165; Bell v Lever Brothers Ltd [1931] All ER Rep 1; Shanghai Hall Ltd v Chong Mun Foo [1967] 1 MLJ 254.

North-West Transportation v Beatty (1887) 12 App. Cas 589 (P.C.) and Burland v Earle [1902] AC 83 (P.C.) are the leading cases.

Supra n 11.

[1925] Ch 407

Ibid at p 428. Romer J’s second proposition dealt with diligence. His Lordship said

A director is not bound to give continuous attention to the affairs of his company. His duties are of an intermittent nature to be performed at periodical
board meetings and at meetings of any committee of the board upon which he happens to be placed. He is not, however bound to attend all such meetings, though he ought to attend whenever in the circumstances he is reasonably able to do so.

Romer J’s third proposition is dealt with in part VI.

xvi See for instance the High Level Finance Committee Report on Corporate Governance Ch. 6 paras 2.2.51-2.2.65 and the Cooney Committee Report in 1989 in Australia.

xvii See for instance Daniels v Anderson [1995] 16 ACSR 607

xviii Re Brazilian Rubber Plantations & Estates Ltd [1911] 1 Ch 425 is a striking example of where ignorance benefited the director.


xxi Supra n 30 at p 563.

xxii See also his Lordship’s preference for the adoption of a similar standard in Norman v Theodore Goddard [1991] BCLC 1028.


xxiv For example in Abdul Mohd Khalid v Dato Haji Mustapha Kamal [2003] 5 CLJ 85, although the reference in this case to Re City was obiter.

xxv The Committee’s emphasis.

xxvi See Ch 6 para 2.2.65 of the Report.

xxvii Ibid.


xxxi Ibid at p 1663.


xxxiii Ibid at p 165-166.

xxxiv [2004] 2 SLR 675.


xxxvii See Industrial Concrete Products Bhd v Concrete Engineering Products Bhd [2001] 2 AMR 2151; [2001] 2 MLJ 332 where a director had acted in the interest of his nominator and against the interest of the company.

xxxviii My emphasis.

1 See Ch 6 para 3.1.3 of the Report.


iii Supra n 51.

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See Ch 6 para 3.2 of the Report.

In the USA the so-called ‘safe harbour’ principle was developed by judicial doctrine.

In Australia the business judgment rule was created by statute. See s 180(2) of the Australian Corporations Act 2001.

See also Consultative Document 5 CLRC, para 3.21

Subsection (1A) of s 132 deals with a director’s duty of care, skill and diligence.

See Dovey v Cory [1901] AC 477 at p 488. An emphatic statement is that of the Privy Council in Howard Smith Ltd v Ampol Ltd [1974] AC 821 at p 832 as follows: “There is no appeal on merits from management decisions to courts of law; nor will courts of law assume to act as a kind of supervisory board over decisions within the powers of management honestly arrived at.”


My emphasis.

Curiously, another new section, s 131A (which deals with voting and participation at a board meeting in respect of a contract caught under s 131) attempts indirectly to deal with the issue of a material interest of a director. See part IX, sub-part A.

This was not actually a defect because s 131(8) provides that s 131 “shall be in addition to and not in derogation of the operation of any rule of law” and thus brings in the application of the common law. At common law, contracts which violated the duty mentioned in s 131 were voidable at the option of the company. See Aberdeen Railway Company v Blaikie Brothers 1 MACQ 461, Hely-Hutchinson v Brayhead Limited [1968] 1QB 549 and Guinness v Saunders [1990] 2 AC 663.

An example is s 128 of the New Zealand Companies Act 1993.

See Ch 6 para 2.1.13 of the Report. See also Consultative Document 5, “On Clarifying and Reformulating the Directors’ Role and Duties” by the Corporate Law Reform Committee for the Companies Commission of Malaysia (hereafter referred to as “Consultative Document 5, CLRC”), at paras 2.1-2.7.

My emphasis.

See n. 70.

Automatic Self-Cleansing Filter Syndicate Co Ltd v Cuninghame [1906] 2 Ch 34 (C.A); Quin & Axtens Ltd v Salmon [1909] AC 442 (H.L); John Shaw & Sons (Salford) Ltd v Shaw [1935] 2 KB 113 (C.A); Breckland Group Holdings Ltd v London & Suffolk Properties Ltd [1989] BCLC 100; Dato Mah Kok & Ors v See Keng Leong & Ors (1990) 1 MSCLC 90, 357; Pilot Cargo v Adinas Tours and Travel Sdn. Bhd. [2002] 2 AMR 1732.


See n 70, supra. In this context, Professor Gower’s view of the possible meaning of the controversial words were as follows: “Possibly “regulations”, when it first
appears, means the existing articles and, when used in the final phrase, means any new articles adopted by special resolution.” *Ibid*, p 145 in his n 46.

lxxiv In this context, see Mayson French and Ryan, *supra* n 70, pp 507-508.

lxxv See s 128 of the principal Act for the procedure required.
THE MALAYSIA ACHIEVEMENT MILESTONE IN BUILDING A CONDUCIVE INVESTMENT ENVIRONMENT

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ABSTRACT

The eruption of the 1997 financial crisis and numerous corporate scandals has awakened the need for better governance. This paper reviews the government effort in promoting Malaysia as a governance conversance investment platform. These include regulatory reform, enhancing the standard of disclosure, introducing best practices and establishment of institutions to educate and guild the business community. The government has also shows recognition of the importance of nurturing good value from young by initiating the National Integrity Plan to improve performance of public services, improve investors’ confidence and perception; and to reinforce the family institution.

Keyword: corporate governance, regulatory reform, best practices

INTRODUCTION

The principle of legal entity enables a duly incorporated company to own assets in its own name. Corporate assets are tangible (physical properties) and intangible (e.g., brand image and reputation). Intangible assets are what give premium value to the corporation. Fombrun and Shanley (1990) describe corporate reputation as the general perception of the behaviour of the company. Stakeholders perceived the reputation of a company based on its financial capability, management effectiveness and its care towards the society (Dollinger et al, 1997). The former two are being studied in corporate governance.
Good governance reflects the company’s ability to employ efficient use of the company’s assets while harnessing social prosperity. Companies with good governance record also enjoy competitive advantage to secure loan capital at a lower cost (Gregory and Simms, 1999).

A survey conducted by McKinsey revealed that investors find that a company’s governance rating is as important as financial indicators; and most of them believe that effective governance measures may reduce corporate failure. For these reasons, investors are willing to pay premium as high as 25% for investment in Asia that are governance savvy (McKinsey, 2002).

CORPORATE GOVERNANCE IN MALAYSIA

CORPORATE GOVERNANCE MEASURES BEFORE 1997

The government of Malaysia has garnered into the practice of good governance even before the eruption of the 1997 Asian crisis. Governance practices, to a certain extent, are legal obligation enforced through statutory provisions in the country.

For instance, issues concerning (i) duties and powers of directors, meeting procedures and shareholders rights – are provided in the Companies Act (CA); (ii) Directors fiduciary duties – are contained in case law inherited from the British system; (iii) ownership transparency – are covered by several securities law that govern securities issuance, trading activities and disclosure procedures; (iv) Legislators power to investigate – are vested on the Securities Commission (SC) and the Exchange empowered by the Securities Commission Act 1993; (v) daily operation of public listed companies – are governed by the Listing Rules of the Exchange, the Due Diligence & Corporate Governance guidelines issued by the SC pursuant to the disclosure based regime (DBR) and the CA.

Besides legislative control, governance framework is also complimented by best practices and guidelines issued by professional bodies. Company secretaries, accountants and auditors, for example, are required to observe the code of ethics issued by their respective professional body ie: the MAICSA (Malaysia Institute of Chartered Secretaries and Administrators), MIA (Malaysia Institute of Accountants) and the IIA(Institute of Internal Auditors); or similar code provided by other monitoring bodies such as the Companies Commission of Malaysia.
Prior to the eruption of the 1997 financial crisis, Malaysia was in the list of the most promising developing economy in the world. This was evident by the record of continual growth rate exceeding 8% up to 1996 with impressively low inflation rate (Barro, 1998). The positive prospect of the country’s future has even led the former prime minister to declare that Malaysia will achieve the status as a developed nation by the year 2020.

The crisis struck in July 1997 ignited by the collapse of the Thai baht. The Malaysian stock market plunged to a historical low from the height of 1,077 points to 262 points on 1st September, 1997; and ringgit Malaysia was RM4-88 to USD$1-00. By 1998, Malaysia experienced a negative growth rate (Barro, 1998) coupled with more than 11% of non-performing loans (M.Ariff and Syarisa, 1999).

Causes of crisis

Review on the investment portfolio in the country revealed that many investment decisions were taken in the light of future growth prospect and when interest rate was at its highest, some even contravened with fundamental investment principles. Nevertheless, banks were willingly approving loans and credits. This was partly due to the fact that analysts too share the positive expectation of continual prosperity, in addition to the monetary expansion policy undertaken by government during that time (Martin and McKibbin, 1999). When the crisis struck, borrowers were slapped with the burden of high interest rate and depreciating local currency. This led to the conclusion that the crisis was due to weakness in the domestic financial sector (Berg (1999).

Some researchers opined that the fundamental cause of the crisis was due to poor corporate governance practiced among Asian countries (Wiwattanakantang et al., 2002; Kochhar et al., 1998; Claessens and Fan, 2003; Scott, 1999). This is not abnormal given the fact that most businesses in this region are either family owned (ownership concentration) or controlled by the government (lack of transparency). It is also an Asian culture to practice the parent-child autonomy, where corporate hierarchy are very much respected and employees are expected to obey top-down instructions. This means the possibility of lower management questioning the act of upper management is virtually non-existent (Low, 2004). This outcome is in congruence with the findings by Gregory and Simms (1999) who reckon the presence of crony capitalism and lack of investor protection mechanisms.

A refined investigative audit conducted by the SC on financially troubled companies confirmed that the main reason of corporate failures is management malpractice (Oh, 2004).
The author defined the factors forming “management malpractices” as accounting error, failure to disclose information relevant to investors, insufficient documents to support expenditures, incomplete filing system and company’s failure to adhere to authorization procedures.

This paper tabulates the landscape of corporate governance reform in Malaysia subsequent to the 1997 financial crisis. Developments are categorised into 2 distinct segments namely the (i) regulatory, codes and best practices; and (ii) institutional bodies.

It is not possible to draw a definite line to separate regulatory reform from codes and best practices development as they are intertwined.

**REFORM AFTER THE CRISIS**

**Regulatory, Codes and Best Practices**

Vulnerability of the commercial sector shown during the crisis cautioned the regulator of the need to harmonize and align existing laws. As a result, the High Level Finance Committee on Corporate Governance (“the HLFC”) was established in 1998. The HLFC was tasked to review the current regulatory structures and provisions; and to recommend changes to remedy its insufficiency especially in the area concerning directors’ responsibilities and duties, shareholders’ rights, scope of disclosure and effectiveness of enforcement regime. Its findings are reported on March 25th, 1999 (HLFC, 1999) along with a set of recommended general principles of corporate governance in the following year, namely the Malaysia Code of Best Practices in Corporate Governance (“the CG Code”).

**Malaysia Code of Best Practices in Corporate Governance**

The CG Code (FCCG, 2000) provides generalized recommendations so that it can be adopted by all forms of establishments and to allow flexibility to suit their distinct needs. It is divided into 4 parts, (namely the Principles of CG, Best Practice in CG, Principles and Best Practices for other corporate participants and the Explanatory Notes) with particular focus on the role of directors and auditors.

*Recommendation concerning Board structure and duties*

The CG Code states that the principal responsibilities of the Board is to ensure that they have put in place a strategic plan for the company; to monitor its management; recognize primary
risks faced by the company and to ensure that the risks are countered with proper risk management system; to ensure that the leadership of the company is on going concern for there are successors in line to replace any exiting senior management and to ensure availability of effective internal control and information system especially if the system concerned involve fulfilment of legal obligations.

It is also one of the principal responsibilities of the Board to develop appropriate communication channels of which shareholders may communicate with the management. For this purpose, the board must name in its annual report a senior director where comments can be conveyed. The director so named must not be involved in the daily management of the company and does not have any equity interest in the company.

The CG Code discourages duality in the roles played by the Chairman and Chief Executive Officer to avoid conflict of interest. This is further strengthened by the recommendation that the board should be resided by non-executive directors ("non-EDs") forming at least one third of its total members.

Pursuant to the CG Code, authority to appoint new members to the board is vested on a nomination committee ("NC") as a whole. To ensure that only qualified candidates are entrusted to lead the organization, the CG Code revised in 2007 recommended the NC to take into consideration, during the selection process, the skills, knowledge, expertise, professionalism, integrity and ability of its candidate to discharge his directorial function. Directors will be subjected to annual appraisal by the NC to ensure that there are sufficient mix of expertise in the team and that each of their contribution are taken into assessment as well.

Though the NC is empowered with extensive regulating authority, it is nevertheless not left unmonitored. The NC shall properly document all assessment and evaluation performed by it for subsequent inspection.

Besides the NC, the CG Code has also recommended for the establishment of a remuneration committee ("RC") as the regulating authority empowered to propose remuneration packages for executive directors. This is created to prevent situations where directors award lucrative packages to themselves. All or the majority of the members to the RC should be non-EDs where executive directors should abstain from participating. Vice versa, remuneration packages for members of the RC are to be determined by the entire Board where the former should withdraw from the process. Both these regimes act as a check-and-balance mechanism to monitor each other. Furthermore remuneration packages awarded to directors should be disclosed in the annual report.
Recommendation concerning Auditors and Audit task

Previously, the task of auditing was shouldered by internal and external auditors only. This gave rise to complications when individual auditors may not have access to the board and lack the capacity to discuss issues with them. Recognizing this fact, the CG Code recommended the establishment of an audit committee (“AC”) with advance authority to investigate any issues that fall within the ambit of their terms of reference. In this way, it is believed that auditors will have a better chance of being heard. The committee is to consist of at least three directors of which the majority of them should be independent and all should be non-executive to avoid conflict of interest. Members selected should be proficient in analyzing financial statements and at least one of them is a member of an accountancy professional body.

Generally, the AC is tasked to oversee the appointment, resignation and dismissal of external auditors; recommend fees payable for their service; co-ordinate with external auditors on issues concerning the scope and nature of their exercise; review the company’s financial statements to ensure its congruence with accounting principles, practices and standards. In the event that the company is required to provide clarification to the external auditor, the AC is empowered to review the management responses prior to its dissemination so as to ensure information given is adequate and relevant. The revised CG Code has also increased the frequency of meetings between the AC and the external auditors to a minimum of twice yearly, instead of once; and this meeting may be convened without the presence of executive directors where both parties are free to discuss. Details describing the activities of the AC, number of meetings held and the name of the attendees are to be reported in the company’s annual report.

Previously, business organizations were given a leeway either to maintain internal auditors or not. However, this has been revised in the CG Code 2007 where appointment of internal auditors is compulsory and they are subjected to the supervision of the AC. The AC is authorized to determine the scope of their functions and the internal audit program, appoint, terminate and appraise internal auditors.

Though the CG Code is merely recommendations where compliance is voluntary, it is nevertheless deemed the principle framework of corporate governance. Its importance is further enhanced when it was incorporated into the Listing Requirement (LR) of the Exchange.
Bursa Listing Requirement

The Exchange acknowledge the findings of the HLFC that good corporate governance is the one most important key that enables the country to compete for foreign capital investment. Therefore almost all provisions in the CG Code were absorbed into the LR that was revamped in 2001 (BMSB, 2001).

The CG Code is given force via Para 15.26 of the LR. The Para require inclusion of a Statement on CG in the company's annual report. It declares that the company has complied with governance measures contained in Part 1 and 2 of the CG Code. To prevent directors from issuing mere declaration, the board is also compelled by Para 15.27(b) to issue a Statement of Internal Control. (The contents of what needs to be examined and disclosed in the Statement will be discussed in later part of this paper). The statement must be reviewed by external auditors (Para 15.24).

The revamped LR enhances protection for shareholders, particularly the minorities, by attributing Chapter 10 Part E to address issues concerning related party transactions. Provisions in the chapter require the company to make immediate announcement informing the Exchange of any transactions exceeding 0.25% that involve a party related to a member of the board, unless the amount of the transaction is not more than RM250,000 or the transaction is of recurring nature necessary for the daily operations of the company. However transactions that cost more than 25% must be approved by shareholders in general meetings where the party so interested should abstain from voting. Approval given is valid for one year, upon which the company should re-submit it for renewal. The same provision is incorporated in Chapter 20 of the Policies and Guidelines on Issue/Offer of Securities and s132 of the CA.

The company is also responsible for the appointment of Independent Advisors to advise shareholders on related party transactions that are of significant value. Advisors are tasked to explain to shareholders the structure of the transactions and whether they are fair, reasonable and in compliance to relevant rules and regulations. Finally, the aggregate amount of all such transactions must be disclosed in the annual report along with the name of the parties so related to it.

2008 Amendment

In line with the revision of the CG Code and the amended CA in 2007, the LR has been amended accordingly and came into effect on the 29th of January this year (herein after referred as “LR 2008”) (BMSB, 2008). LR 2008 was amended with the aim of enhancing the independence of the AC as recommended in the CG Code 2007. Under the new regime, for
example, only non-EDs can be a member of the AC instead of the “majority” as provided in the previous issue. LR 2008 also introduced the element of corporate social responsibility (CSR) in Appendix 9C (29) that require a statement of CSR in the company’s annual report.

Overall, the LR imposes numerous disclosure obligations on PLCs. Information disseminated must be clear facts that are easily understood and do not contain words that are misleading or deceiving. To standardize the information disclosure process, the Taskforce on Corporate Disclosure issued the Best Practice in Corporate Disclosure in 2004.

Adoption of the best practice is voluntary. It recommends that company document policies and procedures practiced in fulfilling the LR disclosure requirement. It should provide procedures for maintaining the secrecy of undisclosed confidential information and the manner in which the company shall deal with rumours or unanticipated leaks of information. The company shall name a senior officer who would coordinate the information disclosure process and to be the spokesperson of the company. This person should practice due diligence in discharging his duties.

**Bursa Practice Notes**

Apart from the principal regulations, the Exchange also issued a list of Practice Notes (PN) to guide compliance to regulatory requirements. In essence, PNs clarify statutory provisions especially in areas that are less defined. To date, there are 20 PNs. Of particular interest is PN 17/2005 (BMSB, 2005).

It concerns classification of financially troubled companies under a scrutiny list. PN17 companies are required to inform the public of their distressed condition and are given a time frame in which they must propose a restructuring scheme to remedy the situation. Companies that fail to restructure face the risk of being de-listed. Later, regulator established a new category, namely the Amended PN17 list. The list contains companies that begin to show signs of distress. These companies too are required to propose restructuring scheme that must be executed within a time frame approved by the authorities.

**Taskforce on Internal Control**

Part of the spirit of the Code is to harness accountability on the part of directors rather than employing descriptive approach through enactment of laws and regulations. Appreciating the spirit of governance has a deeper impact than mere practice of box-ticking. Therefore the Board is required to narrate actions that have been taken to establish an adequate internal control mechanism; and the manner of which they have applied the recommended best
practices stipulated in Part 1 and Part 2 of the CG Code in the company’s annual report and to justify any deviation thereof.

However, both the Exchange and the HLFC do not prescribe a standardized format of how the declaration should be presented. Companies are left to determine a format that best fits their circumstances. As a result, parallel comparison between organizations becomes difficult. Therefore the Taskforce on Internal Control was established in 2000 to produce a standardized format of Statement of Internal Control to aid declaration (IIAM, 2000). Recommendations were made by reference to the UK-based Turnbull report.

Accordingly, the Board should explain the process adopted in its evaluation in the light of reports it received from the management. The Board should satisfy itself with the quality and frequency of reports it receives throughout the year. Reports should contain assessment of risks faced or to be faced by the company, their possible impact on the company and how the management propose to counter them. In evaluating the reports, the Board should identify if more extensive systems need to be installed.

To ensure comprehensive assessment on all segments of the company, the guideline recommended a list of questions of which the directors may ask. For example, the Board is encouraged to question whether:

- appropriate risk management framework and policy have been implemented in the company;
- employees have clear understanding of the company’s objectives and code of conduct
- employees possess the relevant skills, knowledge, experience, professionalism and tools needed to perform their job in pursuing the company’s objective.
- budgets are regularly revised and explanatory note are available to explain excess expenditure.
- adequate communication channel is available for whistle-blowers.

**Amendments to the Securities laws**

One of the recommendations in the report issued by HLFC is the need to harmonize legislation in the country. Among the most significantly related to the business environment are securities laws and the CA. Legislations have undergone amendments since year 2000.

The Securities Industry (Reporting of Substantial Shareholding) Regulations 1998 was amended to insert Regulation 7A that requires disclosure of shareholding that exceeds 2% of the total voting shares in the company together with detailed particulars of the interest.
The amended Securities Industry Act 1983 (SIA) which came into effect in January 2005, focused on issues concerning whistle-blowers and auditors. New provisions concerning whistle-blowing now allocate communication channels for key employees of the company, who come across any events of breach of law or mismanagement during the course of their work, to report such misconduct to the authorities. “Key employees” include chief executive director of the company, officers primarily responsible for preparing financial statements of the company, internal auditors and its company secretaries. S99F, SIA extends legal protection for these whistleblowers from any form of retaliation act (discrimination, removal, demotion, suspension or restriction) by the company, provided the report is made in good faith. Though the Act explicitly protects the informer, they are however not under legal obligation to inform with the exception for Auditors.

Auditors are now statutorily obliged under s99E to report to the Exchange or the SC on discovery of any violation of law, exchange rules or any act of the management that jeopardize the financial status of the company of which they are auditing. Failure to do so renders them punishable under s123 of SIA for a penalty sum of not more than RM 1 million or 5 years imprisonment. Auditors are, however, protected from any legal consequence if the act was done in good faith.

The SC has the ultimate authority, by virtue of s5A of the Securities Industry (Central Depositories)(Amendment) Act 2003 (SICDA), to withdraw any approval that was earlier granted to the PLCs if it is in the public and investors’ interest to do so. The SC may also direct the wrongdoer to rectify the error or make restitution to the injured party. Otherwise, the wrongdoer may be reprimanded or penalized for an amount of not more than RM1 million.

The enforcement power and regulatory power of the CS are further enhanced when the Securities Commission Act 1993 was amended in 2007. The newly amended s126 empower SC to inspect books and documents of companies, operating stock and future exchange, clearing housed and licensed person, without giving prior notice and have the right to full cooperation from the directors and officers of the company concerned. The SC may publish any information concerning the company under investigation if it is necessary to safeguard the interest of investors.

The CA 1965 was amended in 2007 ("CA 2007") to coincide with governance recommendation contained in the CG Code 2007. The CA 2007 requires directors to exercise care at a standard reasonably expected from them based on their actual skill and experience to protect shareholders’ interest. The Act emphasized enhancement in transparency of directors’ interest where they are compelled to disclose contracts that they have interest in and abstain from voting in its decision making process.
For the first time, the common law derivative action is codified to protect the rights of minority shareholders. Derivative action is common law practice that provides that only the company has the right to bring action against directors who breached their duties. The amended CA extend the right for action to shareholders as well. This means, directors now owe, not only common law duties, but also legal obligation to shareholders.

CA 2007 has also deleted s132G from the 1965 Act. The section effectively prohibits transactions with parties related to directors or shareholders of the company. In view of the ever changing business environment, it is feared that such prohibition might impede genuine businesses, therefore the section was repealed. However, related party transactions involving substantial purchase or transfer of assets must be approved at general meeting to prevent abuse of the system by unscrupulous individuals. Furthermore, directors are also required to exercise business judgment rule.

**Code on Takeovers and Mergers**

Advance development of globalization and arising from encouragement under the Malaysia capital plan has led foreign investments into the country. These investments take the form of new establishments, takeovers or mergers with existing businesses. To ensure shareholders are not unfairly jeopardized by these corporate exercises, companies concerned are compelled to observe the Code on Takeovers and Mergers. The acquirer must provide relevant information to shareholders that describe the cash amount or shares substitute offered under the scheme to enable shareholders to weigh the merit or demerit of the scheme. The Code has also been incorporated into the Bursa LR.

The SC also issued Practice Notes to facilitate interpretation of grey areas and treatment of particular circumstances. For instance, both offeror and offeree must make disclosure of any substantial interest or conflict of interest that may arise in the course of the exercise; or to ensure advertisements are not unfairly biased. The Practice Note carries severe criminal liability for issuance of false or misleading information to shareholders and the authorities.

**Institutional Reform**

Apart from the comprehensive revamp on the legislation regime, several organisations were established to compliment regulatory enforcement.

The Malaysia Institute of Corporate Governance (MICG) was established in March 1998 by HLFC, tasked with the role to raise the awareness for good governance practice among Malaysia businesses. This is achieved via trainings and education programs conducted by the institute. In fact, the MICG was named as the Recognized Corporate Governance Training
Centre by the HLFC (HLFC, 1999). MICG also provides a platform for knowledge exchange. Now, the institute’s role has expanded to include promoting CSR to local organizations.

The Minority Shareholders Watchdog Group (MSWG) that commenced operations in 2001 serves to provide advisory and voting services for shareholders, especially the minorities. Services provided include attending general meetings as proxy. This service is advantageous to shareholders as MSWG officers possess the expertise to raise relevant questions to the board. Commencing from 2005, the advisory service of MSWG is also extended to institutional shareholders through the Institutional Shareholders’ Pro-Tem Committee. Institutional shareholders receive advice on areas concerning corporate applications of best practices, level of transparency and accountability of key management officers. To enhance its presence in corporate meetings, MSWG has purchase shares in selected companies. Companies are chosen if they have a record of non-governance or lack of transparency. Besides facilitating shareholders, MSWG also assists organizations in meeting governance requirements stipulated by the LR through the issuance of the CG Screencard in 2006. The screencard serves as a checklist to facilitate directors to self-check the extent of the company’s adherence to the CG Code. Completion of the screencard also facilitates assessment by investors and the relevant authorities. Governance compliance and transparency of individual local organizations are rated by MSWG through annual surveys, published as the Corporate Governance Survey Report, Directors’ Remuneration Survey and the Company Meeting Survey.

Besides, the government has also been inculcating ethical integrity among Malaysian businesses through the establishment of the Business Ethics Institute of Malaysia (BEIM). The institute conducts trainings and education programs to harness marketplace honesty and increase public awareness for better governance.

**ACHIEVEMENT THUS FAR**

**Rating by World Bank**

In a governance survey conducted by the World Bank Institute (Kaufmann *et al*, 2008) covering the period from 1996 to 2007, it was found that the effectiveness of the Government in formulating and implementing governance policies in the country was as high as approximately 84%. This percentile denotes that Malaysia is among the top 34 countries out of the 212 countries studied. Comparing with our close neighbours, Thailand and Indonesia recorded an effectiveness level of approximately 62% and 42% respectively. Singapore, who are constantly at the forefront, top the list with a record of 100% government effectiveness.
Malaysia is perceived to score above average (approximately 68%) in term of the government’s ability in formulating and implementing sound policies to encourage development of the private sector, as compared to Thailand and Indonesia that scores approximately 57% and 44% respectively, whereas Singapore achieved a competency rate of as high as 98.5%.

Rating by Transparency International

In another survey conducted by Transparency International in 2007 (TI, 2007) concerning investors’ perception towards the level of corruption in Malaysia, it was reported that Malaysia recorded a CPI of 5.1 points out of the full 10 points. This places Malaysia at the rank of 43rd out of a total of 179 countries surveyed, or 6th among the Southeast Asia nations.

CONCLUSIONS

The government’s effort in promoting Malaysia as a governance conversance investment platform is demonstrated in comprehensive revamp on current regulatory framework, best practices and establishment of institutions for continual development. But the effort does not end here. Future plan for governance betterment is laid in Chapter 25 of the 9th Malaysia Plan (“9th MP”) that covers the period from year 2006 to 2010 (EPU, 2006). Efforts will be centred on developing preventive measures, remedial actions, punishments for violations and cooperation with various agencies. Among it, MSWG will strengthen scrutiny on auditing framework, corporate risk management system and CSR. Presently, adoption of the CG Code is still voluntary. The authorities will conduct awareness programs to encourage adoption of the Code by private companies as well as developing its own code of ethics. Private efforts will be rewarded by award of good practices and the like.

On the other hand, the government launched the National Integrity Plan (NIP) in April 2004 to inculcate governance awareness in individual citizens (IIM, 2004). It was aimed at improving performance of public services and to improve investors’ confidence and perception towards the country’s efforts in reducing corruption and mismanagement in government agencies, particularly to improve Malaysia’s position on the international Corruption Perception Index. On a smaller scale, the NIP works to reinforce family institution and betterment of social prosperity.

Under the 9th MP, the task to counter corruption and to improve the public delivery system is shouldered by the ACA. It also initiates campaigns to educate the community on the awareness to curb corruptions and to build an ethical society. This initiative is extended to participants as young as primary school children.
In building a society with high morality and integrity, the government established the Village Development and Security Committee and encourage the establishment of Rukun Tetangga as a communication platform with the society. Awareness campaigns will be channelled to the public via these establishments. With these continual efforts, it is hoped that ethical practices will some day form part of Malaysian culture.

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ABSTRACT

In Malaysia, the traditional types of business vehicles are sole-proprietorships, partnerships and companies. The sole-proprietor and partners are liable for the debts incurred in their respective businesses. For a company, the shareholders are liable only for the amount unpaid on their shares. They are thus, not liable for the debts of the company. In April 2008,
the Companies Commission of Malaysia proposed a framework for limited liabilities partnership (“LLP”) to complement the existing forms of business vehicles. It is a hybrid between the traditional partnership and company, for it enjoys the benefits of both forms. Just as in an incorporated company, the liability of the partners of an LLP will be limited. Further, the LLP will enjoy a separate legal entity from its partners, and thus will not be affected by any changes in its constitution. The LLP will also enjoy the management style of a partnership, for it will not be subject to the strict management procedures of an incorporated body. The reasons given for the proposal are to spur the growth of SMEs against the backdrop of the international business environment and the enhancement of domestic business activities. This paper will discuss the proposed framework for Malaysia in relation to the rights of a creditor and a member of the public against the LLP and its partners.

Keywords: contractual liability, professional liability, insurance, accountant

INTRODUCTION

In Malaysia, the traditional types of business vehicles are sole-proprietorships, partnerships and companies. The sole-proprietor and partners are liable for the debts incurred in their respective businesses. For a company, the shareholders are liable only for the amount unpaid on their shares. They are thus, not liable for the debts of the company.

In April 2008, the Companies Commission of Malaysia (“CCM”) proposed to change the business landscape in Malaysia. According to its consultative document, a form of business vehicle which is flexible in terms of its formation, maintenance and termination, and also dynamic, is required to enable the country to be more competitive in the era of globalisation. A sole proprietor or a partner of a firm may not agree to expand the firm’s business activities, for he is liable for the debts of the firm. Moreover, a change in the partnership’s constitution terminates the partnership unless the partnership agreement provides otherwise. On the other hand, an incorporated company, though a separate legal entity from its members, may not be attractive due to its strict regulatory and administrative compliance requirements. Further, the Companies Act 1965 requires a company to hold meeting among the shareholders at least once a calendar year and not later than 6 months after the end of its financial year (sections 143 and 169). At the annual general meeting, the accounts of the company which are prepared in accordance with the approved accountings standards, and audited by auditors appointed by the members, are tabled and discussed (section 169). Further, a company is required to lodge its annual return in the form prescribed in the Eighth Schedule to the Companies Act (section 165). Unless the company is an exempt private company, the company is also required to include its audited accounts in the annual return. A public may then have access to these documents. The Act also regulates fund raising. A private company is prohibited from inviting the public to subscribe in its shares (section 15). A public company may do so, but any issuance of new shares must be preceded by the registration of a prospectus with the Registrar of Companies (section 38). Further, a company which charges its assets as security for a loan, will register the charge with the Registrar (section 108). Moreover, the Act prescribes the qualification and disqualification of a director (sections 129 to 130A). It also prescribes
incorporating a company is not a solution if the law regulating his business prohibits it as in the case of the accounting profession.\(^2\)

Thus, the CCM proposed a framework for limited liability partnership ("LLP") to complement the existing forms of business vehicles. It is a hybrid between the traditional partnership and company, for an LLP enjoys the benefits of both forms. As its name indicates, the liability of the partners of an LLP will be limited. The LLP will enjoy a separate legal entity from its partners, and thus will not be affected by any changes in its constitution. Apart from these two features, the CCM has recommended that the characteristics of the traditional partnership be adopted for the new business vehicle. Unlike a company where the management of the business is vested with its board of directors, the responsibility for the management of an LLP business will be handled by the partners of the LLP. Further, the LLP may raise funds from only the partners and from third party borrowings. It will not have access to the capital market. With regard to the issue of profit, the tax on the profits made by a company is paid at the company level. The company’s shareholders are not required to pay taxes on the dividends received. However, in the proposed model of LLP for Malaysia, the profits of the LLP will be shared among the partners and the partners will be taxed on their respective share of profits. Thus, the LLP itself will not be taxed.

This paper discusses the rights of the creditors and a member of the public who has legitimate claims against an LLP. The following section discusses the liability of a partner in a traditional partnership and in the proposed LLP model by the CCM. This will be followed by an examination on the rights of a creditor and the rights of a member of the public against the LLP and its members. This paper will conclude with some recommendations to be considered by the relevant Malaysian policy makers.

**LIMITED LIABILITY**

Under the traditional partnership, every partner is an agent for his other partners for the purpose of the business of the partnership. An exception is where the partner has no authority, actual or implied, and the outsider with whom he was dealing either knew that he has no authority or did not know or believe him to be a partner (Partnership Act 1967, section 18(b) and (c) of the Accountants Act 1967.

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\(^2\) Section 18(b) and (c) of the Accountants Act 1967.
7). As the Partnership Act 1967 does not distinguish between a partner who actively participates in the management of the firm’s business and one who does not, the general principle applies even where the partner is a dormant partner who was not known to the third party to be a partner at the time of the contract (Beckham v Drake, 1843).

Thus, if a partner does any act in carrying out in the usual way business of the kind carried out by the firm, the other partners are bound. If a debt or obligation is incurred on behalf of the firm, the partners are jointly liable (Partnership Act 1967, section 11; Beckham v Drake, 1843). If a partner commits a tortious act in the ordinary course of the firm’s business, he and his partners are jointly and severally liable for damages to the wronged party (Partnership Act 1967, section 12; Blyth v Fladgate, 1891; Midland Bank Trust Co Ltd v Hett, Stubbs & Kemp, 1979). Even if a partner retires, he remains liable for the debts incurred before his retirement (Partnership Act 1967, section 19(1)). He also will be liable for the debts incurred after his retirement unless he has given the appropriate notice to the third party. To the third party who had dealings with the firm before his retirement, he has to give express notice that he is no longer a partner of the firm. To the rest of the world, an advertisement in the government gazette is sufficient (Partnership Act 1967, section 38).

The CCM’s proposed LLP model applies a different approach. The liability of the partners of an LLP is limited. He will not be liable directly or indirectly for an obligation of the partnership solely by reason of his being or acting as a partner. In other words, the obligation of the partnership is that of the partnership, and not that of the partners. His liability is restricted to the amount of his contribution towards the capital of the LLP at the time of the LLP becoming insolvent (CCM, para 51).

However, the partner who commits a wrongful or tortious act, is personally liable, for his liability is not affected or extinguished merely on the basis that the act or omission was carried out in his role as a partner of the LLP (CCM, para 49 and 50). In this connection, the CCM proposed the adoption of the approach taken by the Singapore model, and thus overcoming the uncertainty created by paragraph 16 of the Explanatory Notes to the UK LLP Act,

“Should the courts consider the case of a negligent member of an LLP whose conduct has resulted in economic loss for his client, the court’s decision cannot be forecast with certainty. But, Williams v Natural Life Health (1998) suggests that in deciding whether such a member was potentially liable to a client, the courts would have regard to various factors including whether the member of the LLP assumed personal responsibility for the advice, whether the client relied on the assumption of responsibility and whether such reliance was reasonable”.

In a nutshell, UK LLP model may require the decision in Williams to be considered when determining whether a person would be held personally liable for negligence committed in his capacity as a partner of an LLP. The Williams was a case on company law, where the House of Lords held that as the director assumed responsibility only on behalf of the company, the negligent misstatement was attributed to the company. Thus, the company, and
not the director, was liable to the victim. It thus follows that a tortfeasor partner may not be liable to the victim.

It is of interest that the CCM recognised the need to safeguard the interest of third parties dealing with an LLP by re-emphasising the liability of a negligent partner remains and is not affected by reason of his acting as a partner of an LLP. It is also noteworthy that CCM had proposed other measures to protect the third parties. For example, the CCM proposed that an LLP must use the words “limited liability partnership” or its abbreviation “LLP” as part of its name (CCM, para 27). This is to draw the public’s attention to the fact that the business entity is an LLP and not a traditional partnership where the partners are jointly liable for the debts of the partnership. Further, the CCM recommended that a professional LLP should be required to effect a bond or insurance to cover its liabilities (CCM, para 20). This will be further discussed in section 4 below.

In the following sections, the writers will discuss the position which may be taken by an outsider when dealing with an LLP.

**CREDITOR**

A business entity when carrying on its trade, will incur liabilities to its suppliers who supply goods on credit. It may also obtain financing for the purpose of carrying on its business. A prudent financier will assess the financial capacity of the debtor before giving credit. Where the debtor is an individual, the financier may request for proof of his income and assets. Where the debtor is a company, he may require a copy of the company’s audited accounts to evaluate the company’s financial position. However, due to the following, a financier may deem the LLP as a higher risk debtor (Morse, 2002) compared to a partnership borrower or even a limited liability company borrower.

As the financier will usually contract with the LLP, the financier may only enforce the contractual obligation against the LLP. As the LLP is a separate legal entity from its partners, a partner of the LLP is not personally liable for the debts incurred by the LLP unless he has personally agreed to be bound.

Although the financier may request the LLP to provide its accounts, such accounts may not be audited. It may not be prepared in accordance with the approved accounting standards. According to the proposal by the CCM, an LLP is not required to have its financial statements audited or filed with the Registrar of LLP. Although this may be mitigated by the

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3 Regulation 3 of the Limited Liability Partnership Regulations 2001 (UK) provides that the provisions in the UK Companies Act pertaining to the financial accounts of a company also apply, with the necessary modifications, to an LLP. Thus, generally, an LLP is required to prepare its...
requirements that first, the LLP is required to keep proper accounting records that will enable true and fair financial statements to be prepared; and secondly, the LLP is required to file an annual solvency or insolvency statement with the Registrar,\(^4\) there is no independent party to confirm the accuracy of the financial statements or the solvency statement.

In view of the above, it is pertinent that a financier takes measures to ensure the repayment of its loans. The following are some options. First, he may require the partners of the LLP to give a personal guarantee and indemnity. In the event the LLP fails to fulfil its contractual obligations, the financier may claim from the partners under the guarantee and indemnity.

Secondly, as the LLP is a separate legal entity and may own assets in its own name, he may require the LLP to create a charge over its assets in his favour. In this respect, it is pertinent that there must be a registration system similar to that applicable to an incorporated company. The LLP or any person interested in the charge created by an LLP should be required to register the charge with the Registrar of the LLP. The registry is important, for a third party dealing with the LLP, for example a financier, may make a search at the registry to ascertain whether the LLP has created a charge over its assets in favour of its creditor. The CCM Consultative Document on LLP did not indicate whether this would be made a requirement. It is observed that such procedure is not prescribed by the Singapore Limited Liability Partnership Act 2005, but in the UK, the provisions in the Companies Act 1985 pertaining to the registration of company charges have been extended to an LLP (regulation 4 of the Limited Liability Partnerships Regulations 2001).

Thirdly, the financier may require the LLP to have its accounts prepared in accordance with the approved accounting standards and audited. This will enable the financier to evaluate the financial standing of the LLP based on the statements prepared by and audited by independent and competent parties.

**MEMBERS OF THE PUBLIC**

Section 3 above discussed the liabilities of a partner of an LLP where there is a breach of contract by the LLP. This section discusses his liability where there is a breach of duty by a co-partner of the LLP.
In the case of *Donoghue v Stevenson* (1954), the House of Lords held that a person who has no contractual relationship with the wrongdoer, may sue the wrongdoer if first, the wrongdoer owed a duty of care to him; secondly, the wrongdoer breached his duty; and thirdly, the person has suffered damage as a result of the wrongdoer’s breach of duty. In 1963, the House of Lords in *Hedley Byrne & Co v Heller & Partners Ltd* extended the wrongful act that gives rise to an action in tort to include negligent advice, and widened the scope of damages to include economic loss. The application of the principles in *Donoghue v Stevenson* (1954) and *Hedley Byrne* (1963) to a practising professional means that a person who is affected by the services provided by the professional, may sue the professional for his financial losses. He may be the professional’s client or a member of the public. It is no longer material that he does not have a contractual relationship with the practising professional.

Under the traditional partnership, the partners are jointly and severally liable to the person who suffered injury as a result of the breach of duty by a partner of the firm. However, under the model LLP proposed by the CCM, only the partner who commits the wrongful or tortious act and the LLP are liable to the victim. The other partners are not personally liable. This makes the proposed LLP an attractive business vehicle to professionals. Unfortunately, this also gives rise to a few issues.

First, to preserve his personal assets, a partner may not assist his co-partner particularly in a high risk case or cover his co-partner during his absences (Finch and Freedman, 2002). Secondly, the partners may be reluctant to set up internal monitoring system for fear of being implicated for any breach of care committed by a co-partner (Finch and Freedman, 2002). Thirdly, a partner who handles or deals with the LLP’s clients may insist on a larger share of the profits, for he incurs a higher risk. If there is a fall-out with a client, the client may sue him but not his co-partners. The co-partners will at the most, lose their contributions and shares in the assets of the LLP, whereas his personal properties are also at stake. These may result in lack of co-operation among the partners of an LLP, thus making the LLP vulnerable to breakups. At the end, the thread that holds the partnership together is its brand name.

Due to the feature of the LLP which does not impose liability on partners who did not commit the wrongful or tortious act, it can be forecasted that some, if not all firms offering professional services may convert to LLP. To protect the public who have legitimate claims for damages against a professional who has breached his duty of care, the CCM has proposed that a professional LLP should be required to effect an insurance policy. However, as discussed in Chan, Ng and Lee (2007), generally, a member of the public has no enforceable right under the policy. This is due to the application of the doctrine of privity which is still applicable in Malaysia. According to this doctrine, a person who is not a party to a contract cannot sue on the contract. As the member of the public is not a party to the insurance policy effected by the LLP, he cannot sue the insurer under the insurance policy even though he has established a claim against the LLP or a partner of the LLP. Thus, it is of utmost importance that the proposed LLP Act expressly requires the insurance company to pay the insured sum to the member of the public who has established his claim against the insured professional.
The CCM did not propose a blanket minimum amount applicable to all members of the profession. Instead, the CCM proposed that the minimum insured amount should be determined by the appropriate professional body governing its practising members. It must be stressed that the main basis for the minimum amount should reflect the real risks faced by the professional or his client (Chan, 2007).

One group of professionals who will benefit from the introduction of the LLP form of business vehicle is the practising accountants. It is noted that currently, the Malaysian Institute of Accountants (“MIA”) requires its members in public practice to obtain a professional indemnity insurance policy. According to its website, www.mia.org.my, the MIA has appointed Marsh Insurance Brokers (Malaysia) Sdn Bhd as its broker and consultant. Like most, if not all, professional indemnity insurance policies, the professional policy brokered by Marsh is written on a ‘claims made’ basis, rather than on an ‘occurrence basis’. This means that the policy covers a claim which is made against an insured and notified to the insurer during the tenure of the policy. It is immaterial that the conduct that gives rise to the claim occurs or the cause of action accrues before the effective date of the policy. It is also immaterial that the claim will be settled or the legal proceedings for the claim will be initiated after the expiry of the policy (Hodgin, 1999)

An important feature of a professional indemnity policy is the sum recoverable from the insurer, which is dependent on the sum insured and the base excess imposed on the claim. It is observed that the current MIA insurance scheme prescribes the minimum sum insured. A ‘one member practice’ must effect a minimum coverage of RM100,000. The compulsory limit increases up to RM5 million.

It is also noted that the main basis for the minimum sum insured and the excess imposed, is the number of members practicing in the firm, which is not reflective of the real risk faced by a practising accountant or a client. Weightage should also be given to the nature of work carried out by the firm. A ‘one-member practice’ could be handling high end work and should be insured accordingly. At the other extreme, there could be a firm with many partners, handling general and simple audit work.

To further compound the problem, an excess amount is imposed on each claim. The excess depends on the gross fees collected and whether the claim arises from work for a public or non-public listed company. The base excess is RM1,000 if the firm’s gross fees does not exceed RM200,000, and gradually increases to a maximum of RM10,000 for a firm which gross fees exceeds RM2,000,000. If the claim arises from work for a public listed company, a different scale of base excess ranging from RM5,000 to RM30,000, is imposed. The writers submit that there should not be a different scale applicable for claims made with respect to the work for a public listed company. The nature of work is similar. The same standard of care imposed on the insured applies.
CREDITORS’ PROTECTION

A pertinent issue is whether there is any recourse against a partner of an LLP who withdraws his contribution or property from the LLP and thus prejudices the LLP’s creditors. It is noted that for a company, there are statutory protections found in the Companies Act 1965 which confer rights on the creditors of the company in the even the company becomes insolvent. Sections 303(3) and 304(2) provide that an officer of the company who knowingly contracts a debt with no reasonable ground of expectation of the company being able to pay the debt, may be personally liable to pay that debt. Under section 365, an officer who wilfully pays or permits to be paid any dividend out of what he knows is not profits, is personally liable to the company’s creditors to the extent by which the dividends exceed the profits.

Similarly, the creditors of the traditional partnership are protected by section 52 of the Bankruptcy Act 1967. As the partners of the traditional form of partnership is liable for the debts of the partnership and also for the damages caused by a wrongful act of a co-partner, the creditor and the wronged party may sue them in their individual capacities. If a partner becomes a bankrupt, the Director General of Insolvency may trace any voluntary settlement of property which is made by the partner within two years before he becomes a bankrupt. It is immaterial that the partner was solvent at the time of the settlement. The same section also provides that a voluntary settlement made within five years of the partner’s bankruptcy is also void unless it can be proven that the partner could pay off his debts without the aid of the property comprised in the settlement.

Following the models of the UK and Singapore, the CCM has also proposed a claw-back provision requiring contributions from partners and former partners who have withdrawn property from the LLP if it can be shown that the LLP was insolvent at the time of the withdrawal or that the partners know or have reasonable grounds for believing that the LLP was or would not be able to pay its debts. This is a step towards the right direction, for a partner who stripes the LLP will be liable to reimburse the value of the assets siphoned off the LLP.

CONCLUSIONS

The introduction of the LLP form of business vehicle as an alternative to the traditional types of business vehicles is much awaited particularly by businesses offering professional services. However, to ensure there is a balance between creditor protection and the advantages offered by the LLP, care must be taken to educate the creditors and also in the drafting of the new LLP Act.
Creditors who have been dealing with the traditional form of partnership, must be informed that the liabilities of the partners of an LLP are limited. Thus, they must take precaution to bind the partners. As in the case of an incorporated company where a creditor may require joint and several guarantee from certain members and officers of the company before it extends a credit line to the company, the creditor of an LLP may wish to obtain a joint and several guarantee and indemnity from the partners of the LLP. In the event the LLP fails to fulfil its obligations, the creditor has recourse against the guarantors.

Similarly, a client of a professional firm will not have recourse under the professional indemnity insurance policy effected by the firm. This is due to the application of the doctrine of privity which does not permit a third party to take action against the insurance company under the insurance policy. Thus, it is of utmost importance that the new LLP Act provides not only the mandatory insurance coverage by a professional firm, but also requires the insurance company to pay the insured sum to the person who has established a claim against the insured professional. Further, steps should be taken to ensure that a professional is appropriately insured. The sum insured should be reflective of the real risk faced by the insured.

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Limited Liability Partnerships Act 2000 (United Kingdom)
Limited Liability Partnerships Regulations 2001 (United Kingdom)
Limited Liability Partnerships Act 2005 (Singapore)
AN EMPIRICAL STUDY ON CHINESE WHITE COLLAR FEMALES CONSUMER BEHAVIOR

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ABSTRACT

Women’s current high levels of education and participation in the labor force in China has focused attention on their changing lifestyles and consumption patterns. With the raising of social status, they have stronger rights to allocate family consumption and have more funds to spend on self-consumption, which creates a new challenge to marketers. This study investigates the main factors which influence their consumer behavior and finds significant elements that determine their attitudes to different products. Finally, some suggestions to marketers are put forward.

INTRODUCTION

In the traditional Chinese society, the role of a woman is judged on the process of how good a daughter-wife-mother-homemaker she is. Thus, the accompanying values associated with this role are submissiveness, gentleness, supportiveness, and dependence. However, with the rapid economic growth and social development since China embarked on its economic reforms and opening-up policies, the social and economic roles of Chinese women have changed dramatically. The modern values for a working woman are now more likely to be independence, aggressiveness, equality, and achievement orientation. With these changes, Chinese women, especially white-collar working women are expected to make more purchases of personal products and play a greater important role in making decisions on the family buying processes. Not surprisingly, the last few years have witnessed a burgeoning growth of markets for female products. Moreover, according to a survey conducted by CMMS, approximately 60% of family consumption has been made by women over the last five years.

At the same time, the increasing aspirations of Chinese women to consume present clearly both opportunities and challenges to marketers who are planning and exploring this emerging large market. Under these circumstances, distinguishing and analyzing female consumer behaviors, especially those white-collar females who have high purchasing power is important. However, few researches have focused on the understanding of Chinese female market, nor the factors that influence Chinese women’s consumer behavior.
To fill this gap, this paper tries to identify Chinese white-collar female’s consumption attitudes and values, ascertaining factors that exert impacts on their consumption behavior. And then, to put forward some suggestions for those who are trying to survive and thrive in China’s female-products market.

LITERATURE REVIEW

There are many theories explaining customer behavior and attributes. According to the consumer psychology in behavioral perspective, “The most widely-accepted and influential models of consumer behavior derive in large part from cognitive psychology. As a result, consumer choice is usually understood as a problem-solving and decision-making sequence of activities, the outcome of which is determined principally by the buyer's intellectual functioning and rational, goal-directed processing of information.” (Foxall, p. 8). These types of theories on consumer behavior invest consumers with extensive capacities to handle considerable quantities of information and to engage in processing of that information to compare, contrast, and evaluate alternative information for the consumers' purposes and aims.

The term ‘white collar’ was first used by Upton Sinclair in relation to modern clerical, administrative and management workers in the 1930s (Oxford English Dictionary, 3rd edition.). Sinclair's usage is related to the fact that during most of the nineteenth and twentieth century male office workers in European and American countries almost always had to wear dress shirts, which had a collar and were usually white. Additionally, in the factory system of the nineteenth and early twentieth centuries in English speaking countries, the color of overalls or coveralls indicated occupational status: blue for workers, brown for foremen, and white for professional staff such as engineers.

Women’s current high level of education and participation in the labor force has focused attention on their changing lifestyles and consumption patterns. The effects of changing women’s roles on consumption behavior have also been studied. Green and Cunningham (1975) found that husbands of liberated wives were perceived as making fewer purchasing decisions on their own than was the case for husbands of either moderate or conservative wives. In addition, the liberated wives were reported as playing a significantly greater role in deciding the amount of money to spend on purchases than were conservative wives. Furthermore, husbands of working women were found to do more major grocery shopping than husbands of non-working wives (Douglas, 1975). Nichols and Fox (1983) indicated that time-buying strategies were used more often by employed-wife families for purchases. Luo (2007) pointed out that working females with high salaries in China are the main force in the female-product market not only because they pursue a high quality life for themselves, but also they have more rights in purchasing decisions. They are now playing a significant role in household consumption together with performing the identity of daughter and wife as well as mother.

Customers and their behaviors comprise many attributes and differentials, associated with demographics, groups or other factors. Sin and Yau (2004) designed a model as FRO (Female
Role Orientation) in the perspective of the Oriental World to describe Chinese female consumption. In their study, FRO is defined as the common roles preferred and held by Chinese women, determining their attitude to purchasing behavior. They developed a reliable and valid measure of FRO, incorporating some basic and related dimensions as well as the essence of Chinese culture. They found that the FRO of Chinese women is a multidimensional construct consisting of three components: traditional orientation, economic and social independence, and societal orientation. They concluded that Chinese females have been influenced by Western culture and have a mixture of values of family orientation, submissiveness, social and economic independence, and societal orientation.

Tai (2004) analyzed different kinds of shopping styles among Chinese working females, suggesting that four clusters were distinctive: younger females with no more than secondary school education tend to be active fashion chasers, buying trendy products without much thought; women who are single with a university education and good jobs are likely to be rational shoppers, giving priority to quality more than price and value; women who are relatively older and married are value buyers, concerned about price and value more than brand or style; those women who are not enthusiastic about shopping constituted the group of opinion seekers, preferring to seek advice from family, friends or salespeople. Li and Feng’s Research Center carried out a survey in 2005, the result of which indicates that the growing number of young females in white-collar jobs is one of the key drivers of China’s apparel market. Mainland women are now increasingly concerned about appearance and are image-conscious. Being more financially independent, they can buy more clothing and can afford higher-priced items. The demand for women’s clothing, especially for work and formal clothes, is likely to be greater than ever.

Several researches show the different characteristics of male and female consumption. Guo (2003) argues that the social gender is closely related to female consumer behavior. The concept of social gender determines consumption culture and furthermore distinguishes female consumption culture from males. Li (2007) further indicates that female consumer behavior is more perceptual than that of males. Perceptual consumption means consumers satisfy his/her own psychological purpose through purchasing. Perceptual consumption is different from rational consumption, which emphasizes “goods”, including function, quality and price while the former concept stresses the feelings of satisfaction, such as the experience and enjoyment. Compared to rational consumption for survival, perceptual consumption is more elastic and flexible.

Unfortunately, there are few researches, especially specific survey-based researches, conducted in China to measure the factors influencing Chinese white-collar females consumption. Those women have something in common: higher education, satisfying salaries, greater purchasing power, focusing on self-fulfillment and development, and pursuing high quality lives. Most of the empirical studies we have found is in the perspectives of Western countries, while almost all the researches focusing on Chinese working women are theoretical. This is the main point of this study, to carry out research in China and ascertaining factors that influence Chinese white-collar females’ consumer behavior.
This study aims to investigate and examine the factors that influence Chinese white collar females’ consumer behavior and implications to marketing. Shanghai was chosen as the location for this study for the following reasons. First, Shanghai has gone through tremendous economic growth over the past decades. It has surpassed the level of many middle-level developed countries in per capita gross domestic product (GDP). Second, due to its high per capita income and developed marketing environment, Shanghai is the focus of marketers in China, indeed, even in the Asian region as a whole. Hence, an understanding of the consumption behavior of Shanghai’s female consumers will be of prime importance to marketers in designing marketing strategies and promotional campaigns in China as a whole. The sample for this study consisted of 120 white collar females, including office workers, lawyers, doctors and university teachers living in Shanghai, China.

The questionnaire used in this study consists of three parts. Section 1 requires the respondents’ personal details, such as marital status, age, education background, type of professional certification, birth city, etc. Section 2 investigates respondents’ working situations, such as their jobs and salaries; and Section 3 includes questions regarding their consumption attitudes and habits. The total number of questionnaires disseminated was 120 sets to white collar females in Shanghai. 111 sets of questionnaires were collected while 9 sets of questionnaires were not collected, giving a 92.5% return rate.

FINDINGS AND DISCUSSIONS

Descriptive Statistics

Table 1 shows the descriptive statistics of the respondents

<table>
<thead>
<tr>
<th>TABLE 1: DESCRIPTIVE STATISTICS OF RESPONDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive Statistics</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Marital status</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Income</td>
</tr>
<tr>
<td>Position</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
</tr>
</tbody>
</table>
From Table 1, we can see that the average age of the respondents in this research is 28.56, which generally means that most respondents are in a good and stable period in career development after entering into the workforce for about 5 years after graduation from higher education. They are in the maturing period of their consumption attitudes and have relatively fixed consumption habits and consuming tendency.

Also, we undertook the study on white collar working females, who are doing office work and who have a good education. From Table 2, we found that most white collar females we investigated in this survey have a bachelor’s degree (76.6%), and 13.5% among all respondents have a master’s degree. They are regarded as a suitable sample for us to use in our study.

### Table 2: Education Level of Respondents

<table>
<thead>
<tr>
<th>Education</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school</td>
<td>11</td>
<td>9.9</td>
<td>9.9</td>
<td>9.9</td>
</tr>
<tr>
<td>Bachelor</td>
<td>85</td>
<td>76.6</td>
<td>76.6</td>
<td>86.5</td>
</tr>
<tr>
<td>Master</td>
<td>15</td>
<td>13.5</td>
<td>13.5</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>111</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

### Table 3: Marital Status of Respondents

<table>
<thead>
<tr>
<th>Marital Status of Respondents</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unmarried</td>
<td>46</td>
<td>41.4</td>
<td>41.4</td>
<td>41.4</td>
</tr>
<tr>
<td>Married</td>
<td>63</td>
<td>56.8</td>
<td>56.8</td>
<td>98.2</td>
</tr>
<tr>
<td>Divorced</td>
<td>2</td>
<td>1.8</td>
<td>1.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Normally, it is believed that the consumption attitudes and habits differ between unmarried women and married women with her own families since married women play an important role...
role in family consumption as they occupy different roles, such as daughters, wives, mothers, daughters-in-law while unmarried women concentrate more on personal consumption and usually have no burden of family with which to be concerned. To determine whether marital status is an important factor that influences white collar working females, we chose both unmarried and married respondents, accounting for 41.4% and 56.8% respectively, as is shown by Table 3.

Many marketing researches have recognized the importance of early life experiences in shaping patterns of consumer behavior in later life. In China, since there is a big gap in economic and social development in different regions, therefore the consumption values and patterns vary considerably among people in different regions. In this way, birth places are a factor which cannot be neglected as far as China is concerned. The data of birth places is demonstrated in table 4.

### TABLE 4: BIRTH PLACES OF RESPONDENTS

<table>
<thead>
<tr>
<th>Living Places</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Big cites</td>
<td>47</td>
<td>42.3</td>
<td>42.3</td>
<td>42.3</td>
</tr>
<tr>
<td>Medium &amp; small cites</td>
<td>32</td>
<td>28.8</td>
<td>28.8</td>
<td>71.2</td>
</tr>
<tr>
<td>Small towns</td>
<td>24</td>
<td>21.6</td>
<td>21.6</td>
<td>92.8</td>
</tr>
<tr>
<td>Countryside</td>
<td>8</td>
<td>7.2</td>
<td>7.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>111</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 5: LIVING PLACES OF RESPONDENTS

<table>
<thead>
<tr>
<th>Living Places</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Downtown</td>
<td>73</td>
<td>65.8</td>
<td>65.8</td>
<td>65.8</td>
</tr>
<tr>
<td>Outskirts</td>
<td>19</td>
<td>17.1</td>
<td>17.1</td>
<td>82.9</td>
</tr>
<tr>
<td>Nearby towns</td>
<td>11</td>
<td>9.9</td>
<td>9.9</td>
<td>92.8</td>
</tr>
<tr>
<td>Countryside</td>
<td>8</td>
<td>7.2</td>
<td>7.2</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Besides birth place, current living place is another factor which may exert impact on female consumer behavior. This is shown by table 5 which indicates that most white collar females, 65.8% in our study, are living in ‘downtown’ areas where there is a modern business atmosphere with which has a ‘fast life beat’. Hence, they are inclined to be influenced by the consumption patterns of a big modern city. For example, they acquaint themselves with product information because they can easily access advertisements and sales activities which are held mostly in big city centers. And they more easily accept new concepts and new things, as well as keeping loyalty to their favorite brands.

### 2. Factor Analysis

In order to find the main factors that influence white collar working females’ consumer behavior, we designed Section 3 regarding their consumption attitudes and habits. With 20 variables and 111 cases, factor statistics can be indicated using SPSS to make further analysis. The 20 questions were designed to ask participants whether they agree or do not agree with various statements describing attitudes and views on consumption, which served to test their consumer behavior. Responses were obtained on a five point Likert-type scale, ranging from 1 (strongly agree) to 5 (strongly disagree).
TABLE 6  VARIABLES ON CONSUMPTION ATTITUDES

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>OK</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
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<tr>
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<td></td>
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<td></td>
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</tbody>
</table>

2.1 The possibility for factors analysis

There are two standards for statistics to judge whether the data could be analyzed by factors analysis, KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) and the Bartlett Test of Sphericity. The closer the value of KMO is closer to 1, the better result is. As a result, KMO is 0.615, more than 0.5. The significance of the Bartlett Test of Sphericity is 0.000, which means factors analysis is feasible.
TABLE 7  KMO AND BARTLETT'S TEST

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | 0.615 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 265.887 |
| df | Sig. | 78 | 0.000 |

2.2 Extraction of main factors

TABLE 8 MAIN FACTORS ANALYSIS

<table>
<thead>
<tr>
<th>Component Matrix$^{a,b}$</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>.912</td>
</tr>
<tr>
<td>2</td>
<td>.625</td>
</tr>
<tr>
<td>3</td>
<td>.640</td>
</tr>
<tr>
<td>4</td>
<td>.731</td>
</tr>
<tr>
<td>7</td>
<td>.541</td>
</tr>
<tr>
<td>9</td>
<td>.786</td>
</tr>
<tr>
<td>10</td>
<td>.835</td>
</tr>
<tr>
<td>11</td>
<td>.779</td>
</tr>
<tr>
<td>12</td>
<td>.686</td>
</tr>
<tr>
<td>14</td>
<td>.329</td>
</tr>
<tr>
<td>18</td>
<td>.315</td>
</tr>
<tr>
<td>19</td>
<td>-.189</td>
</tr>
<tr>
<td>20</td>
<td>.190</td>
</tr>
<tr>
<td>8</td>
<td>.297</td>
</tr>
<tr>
<td>5</td>
<td>-.507</td>
</tr>
<tr>
<td>6</td>
<td>.366</td>
</tr>
<tr>
<td>13</td>
<td>.327</td>
</tr>
<tr>
<td>15</td>
<td>.091</td>
</tr>
<tr>
<td>16</td>
<td>.436</td>
</tr>
<tr>
<td>17</td>
<td>.216</td>
</tr>
</tbody>
</table>
According to the result of the factors extraction, we have five factors which are important. See table 9. Thus, on balance, we could conclude that among the determining factors that influence white collar females’ consumer behavior are, living attitudes, educational points, ideas about consumption in advance, personality and family-related concepts are the most significant factors.

### TABLE 9 FACTORS EXTRACTION AND NOMINATION

<table>
<thead>
<tr>
<th>Variables</th>
<th>Name for factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1</td>
<td>Living attitudes</td>
</tr>
<tr>
<td></td>
<td>Educational points</td>
</tr>
<tr>
<td></td>
<td>Consumption in advance</td>
</tr>
<tr>
<td></td>
<td>Personality</td>
</tr>
<tr>
<td></td>
<td>Family conception</td>
</tr>
</tbody>
</table>

3. Correlations analysis

We have found that there are five main factors that affect white collar working women’s consumer behavior in Shanghai, China. However, we still have no idea about different preferences to products for different kinds of working women to see how particular factors affect their purchasing behavior. So, we undertook a survey to look into different attitudes to three kinds of products: ‘knowledge’ products, household products, and leisure products and services.

3.1. ‘Knowledgea’products

In our survey, more than 60% of the respondents have the habits of buying ‘knowledge’ products regularly, such as books or academic journals for further self-improvement. The quick working beat and heavy stress convinces them that “it is never too late to learn more”.
It is indicated in Table 10 that the factors of “age” and “marital status” are significant ones in the purchasing of ‘knowledge’ products. With aging and a heavier burden from families, the process of further study and further self-improvement is restrained.

On the other hand, almost all the females in the survey argue that the education of children is of most importance, compared with further study for her or her husband. This point-of-view is associated with the factors of age, marital status, birth place of working females and their educational levels. The reasons should be: first, mature women who are married take lower priority over their families, realizing the importance of education for their children; second, the educational background and experience of women convinces them of the importance of education.

**TABLE 11 RELATIVE ANALYSIS ON CHILDREN’S EDUCATION**

<table>
<thead>
<tr>
<th>Children’s education is more important</th>
<th>Age</th>
<th>Marital status</th>
<th>Birth place</th>
<th>Educational level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.516**</td>
<td>.376*</td>
<td>-.347*</td>
<td>-.385*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.013</td>
<td>.022</td>
<td>.011</td>
</tr>
<tr>
<td>N</td>
<td>111</td>
<td>111</td>
<td>111</td>
<td>111</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.05 level (2-tailed).**

**. Correlation is significant at the 0.01 level (2-tailed).**

3.2. Household products

A number of researches show that women are playing a dominant role in their family’s consumption activities. Our study shows that the decisions on purchasing of daily-use
products are made by women independently. But for the big purchases, such as a house or car, the decisions are usually made by both husbands and wives.

**TABLE 12 RELATIVE ANALYSIS ON HOUSEHOLD PRODUCTS PURCHASING**

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Marital status</th>
<th>Birth place</th>
<th>Educational level</th>
<th>Living places</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household appliances</td>
<td>.050</td>
<td>-.009</td>
<td>.163</td>
<td>-.034</td>
<td>-.034</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.599</td>
<td>.922</td>
<td>.088</td>
<td>.720</td>
<td>.720</td>
</tr>
<tr>
<td>N</td>
<td>111</td>
<td>111</td>
<td>111</td>
<td>111</td>
<td>111</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car</td>
<td>.405**</td>
<td>.007</td>
<td>111</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.158</td>
<td>.312</td>
<td>111</td>
</tr>
<tr>
<td>N</td>
<td>.371*</td>
<td>.014</td>
<td>111</td>
</tr>
<tr>
<td>Real estate</td>
<td>.029</td>
<td>.764</td>
<td>111</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.057</td>
<td>.549</td>
<td>111</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>-.100</td>
<td>.299</td>
<td>111</td>
</tr>
<tr>
<td>N</td>
<td>.030</td>
<td>.753</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>.014</td>
<td>.887</td>
<td>111</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).**

**. Correlation is significant at the 0.05 level (2-tailed).**

From table 12, first, we can see that there is no significance between the purchasing of household appliances and factors of “age”, “marital status”, “birth place”, “educational level”, and “living places”. This phenomenon is partly because of the low elastic demand for these kinds of products in this modern and developed city. The tendency of purchasing is affected by brands, quality of products and services without the major influences of personal consumption views.

Second, for the purchasing of a car, the factors of “age” and “birth place” are important factors. Currently, in China an automobile is a luxury with a large elastic demand for most Chinese people, and the purchasing behavior is closely related to personal preferences and financial aspects.

Third, we would like to note the purchasing of real estate. Just like household appliances, the purchase of real estate is not related to the factors of “age”, “marital status”, “birth place”, “educational level”, and “living places”. But the reason is definitely different. Everyone, no matter with what ages, backgrounds, and jobs, needs a place to live. In our survey, most white collar females care more about size and location of their home. Thus they focus on the
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district (40.5%) and the surrounding areas (18%). From this, we can conclude that they attach importance to location and comfort.

3.2. Leisure products and services

Leisure activities have become an essential part of modern life. The higher levels of women’s education and a deeper understanding of leisure in a cultural sense, helps white collar working women to a greater extent to realize the inner connection between leisure and people’s living and life quality. During the past twenty years of China’s reforms and openness to the outside world, with the continuous improvement of people’s living standards, women’s leisure time has been constantly increasing. Leisure activities have become a necessity for women’s all-round development.

According to Ma (2008), leisure refers to a state of life and a mode of behavior that one is in during her or his spare time, a state in which one is engaged in cultural creation, cultural appreciation and cultural construction in order to satisfy one’s needs in a variety of fields, through various modes of activities such as conduct, thoughts, emotions and art of a human individual or a group. The nature of such leisure is a representation of a person’s spiritual life. Leisure is closely related with a person’s daily life and is usually connected with one’s economic situation, education, knowledge and ability, and also inclinations, personal interest, etc.

In our survey, we examined the respondents’ attitudes to travelling. More than 80% of working female have regular travelling activities every year, and more than half of them tend to travel aboard.

As for the factors that exert impact on their attitude to travelling, the factors of “Age” and “Educational level” are two significant factors, as shown on table 13. It can be understood that young white collar working women are more active in leisure activities and women with higher level educational backgrounds desire and expect to broaden their views and experience more through such kinds of activities.

TABLE 13 RELATIVE ANALYSIS ON LEISURE PRODUCTS PURCHASING

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Educational level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude to travelling</td>
<td>Pearson Correlation</td>
<td>.292*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.050</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>111</td>
</tr>
</tbody>
</table>

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### CONCLUSIONS

In the past, Chinese women were stereotyped in Western films, paintings and literature as being traditional, low educated, and submissive. However, Chinese women are no longer homogeneous. The last three decades have witnessed a substantial change in the role of Chinese women, as indicated by the different emerging roles perceived and held by them. The consumer behaviors have changed correspondingly.

This study shows the elements which influence the consumer behavior of white collar professional women in Shanghai, especially those factors that facilitate and encourage them to shop and spend. As discussed in the previous sections, white collar females have higher levels of tastes for life, hoping to realize their social values and show their own views and attitudes through consumption. This sheds light for product marketers who are faced with these kinds of consumers, the features and characteristics should be clearly shown and the orientation of the products should be strongly emphasized.

However, for professional women, different products should have different marketing policies. First, products for daily use, a low-price policy could be used. Since daily life products are the ones with low elasticity, which are needed by all professional women, with no correlation to age, educational background and marital status, etc. Second, for newly-launched products and children products, a high-price policy is recommended. White collar women desire to keep pace with the development and would like to be in fashion all the time, so for those new products which have no similar competitors, professional women are willing to buy at a high price to show their values and tastes. As for children’s products, especially educational products, professional women have priority to quality and contents more than price since they think it is needed for the growth of their children. Third, a psychological price policy should be adopted flexibly. Nowadays, popular culture plays an important role in female consumption. Consumption is now considered to be connected with willingness, emotion, favoritism and characteristics. Professional women cannot resist the influence of the media and of celebrities and they not willing to be out of fashion. The purchasing behavior could satisfy their psychological desire to manifest their tastes and social status.
REFERENCES


BRAND ASSETS RECOGNITION AND MEASUREMENT IN MALAYSIA

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ABSTRACT

In the year of 2007, Brand Finance plc, an independent leading brand valuation and strategy advisory firm, published its first brand index of the Malaysia’s top 50 most valuable brands. However, an investigation of the balance sheets of these top brand business firms revealed that 90% of these firms are not been recognizing their brands, though they were ranked as the top valuable brands. This paper reviews the financial reporting framework and standards relevant to brand assets accounting. This paper also critically reviews the potential hurdles for Malaysian firms in recognition and measurement of brands onto their balance sheets.

INTRODUCTION

In the highly competitive and globalize market places today, market boundaries becoming blur and non-existence. Goods, services, capital, labour, information and many other economic factors move across these “boundaries” easier and quicker. Relatively compared, intangible factors are moving in a more efficient and effective manner than the tangible factors. Therefore, to make international and cross boarder marketing more efficient and effective, business firms usually create the intangible element of the goods and services. As the intangible element reaches a market place, it would create demand for the goods and services, which usually would move relatively slower. Same principle works equally well when business firms would like to position goods and services to consumers, usually the intangible elements would reach the consumers first.

Besides basic information and details about the goods and services, one of the major intangible elements of goods and services, in this context, is the brand of the goods and services or the reputation of the business firms producing and offering the goods and
services. From the perspective of marketing, a brand is defined, by the American Marketing Association, as a name, term, sign, symbol, or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors (Kotler and Keller, 2006). For consumers, brands enable them to evaluate the identical product differently and to find out which brands satisfy their needs. As consumers’ lives become more complicated, rushed, and time-starved, the ability of a brand to simplify decision making and reduce risk is invaluable (Kotler and Keller, 2006). For business firms, brands simplify product handling and help to organize inventory and accounting records. More importantly, a brand offers the business firm legal protection for unique features or aspects of the product.

In the year of 2007, Brand Finance plc published its first brand index of the Malaysia’s top 50 most valuable brands. Appendix A tabulates the full list of the top 50 brands published by Brand Finance plc for the year of 2007. These brands were provided with valuation and rating. The owners of these top brands are all listed business firms on the stock exchange (Bursa Malaysia), except one telecommunication firm which was recently privatized and delisted.

However, an investigation of the latest balance sheets of these top brand business firms revealed that 90% of these firms or 45 of them have not recognized and capitalized their brands, though they were ranked as the top valuable brands in Malaysia. As presented in Table 1 below, only 5 out of the 50 business firms of the top brands in Malaysia recognized brands onto their balance sheets. All the 5 business firms recognized their brands as trademarks except one recognized its brand as the name of its newspaper. However, the value recognized as brands for these 5 business firms is extremely small as compared to the book value of their total assets as indicated in Table 1. The total book value of these brands of RM 204.9 million represents less than 0.02% of the total assets of the 50 business firms, the owners of the top most valuable brands.

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Brand</th>
<th>Recognized as</th>
<th>Book Value</th>
<th>% to Total Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Genting</td>
<td>Trademark</td>
<td>RM 93.6 mil</td>
<td>0.31%</td>
</tr>
<tr>
<td>10</td>
<td>Sime Darby</td>
<td>Trademark</td>
<td>RM 59.7 mil</td>
<td>0.31%</td>
</tr>
<tr>
<td>26</td>
<td>KLK</td>
<td>Trademark</td>
<td>RM 44.8 mil</td>
<td>0.64%</td>
</tr>
<tr>
<td>28</td>
<td>Berjaya</td>
<td>Trademark</td>
<td>RM 6.7 mil</td>
<td>0.06%</td>
</tr>
<tr>
<td>42</td>
<td>Sin Chew</td>
<td>Newspaper name</td>
<td>RM 0.1 mil</td>
<td>0.02%</td>
</tr>
</tbody>
</table>

This paper reviews the financial reporting framework and standards enforceable in Malaysia, relevant to brand assets accounting. This includes the recognition and measurement of the brand assets, whether the brands are internally developed, externally acquired both separately and via business combinations. This paper also critically reviews the potential hurdles for
Malaysia firms in recognition and measurement of brands onto their balance sheets. This is especially so the top 50 most valuable brands in Malaysia.

IS BRAND AN ASSET?

Business firms spent huge amount of resources for brand building and related marketing expenditure. As brand could be a name, term, sign, symbol, or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors, almost all forms of marketing activity a business firm engages would have involved, directly or indirectly, in brand building. Laidler-Kylander et al (2007) identified some brand building concepts: building the brand identity, revitalizing the brand, expressing the brand and protecting the brand. A key and common element to these concepts is communication with consumers. In general, these brand building activities and communications with consumers include advertisement, promotion, design, packaging, market research, distribution, display and etc. The issue is whether resources invested in these brand building activities considered as acquisition, building or creation of assets? Based on the same principle, resources invested in construction of an office building or plant would be recognized as acquisition or building of assets; these resources are definitely on the balance sheet. So, what about brands?

Since brand names can be protected through registered trademarks; manufacturing processes can be protected through patents; and packaging can be protected through copyrights and designs, these intellectual property rights ensure that the business firm can safely invest in the brand and reap the benefits of a valuable asset (Kotler and Keller, 2006). As legal properties of business firms, brands can be bought and sold, and provide the security of sustained future revenues to their owners. This property of brands provides determinant attribute for brands to be treated as assets and has significant implication on financial reporting.

From the perspective of financial reporting, a visit to the Malaysian Accounting Standards Board’s Framework for the preparation and presentation of financial statements (the MASB Framework) provides a basis to ascertain whether brands are assets. According to the MASB Framework, an asset is defined as a resource controlled by the enterprise as a result of past events and from which future economic benefits are expected to flow to the enterprise (MASB, 2007). The definition highlights a number of attributes for an asset. These attributes include controllability, past event as well as inflow of future economic benefits. Among these 3 attributes, probable inflow of future economic benefits should be the reason for business firms to invest their resources. This is the basic principle of investment, which is the pay off from the invested resources. Therefore, an asset (invested resource) is expected to generate future economic benefits for the business firms. The past event attribute denotes the initial investment transaction which gives rise to the asset. Lastly, controllability denotes ownership of the assets; only the owner of the assets has the legal rights to reap the future economic benefits.
Whether a brand is externally acquired or internally developed, controllability and past event are always not the issue. In the case of external acquisition, a typical sale and purchase agreement provides the contractual ownership to the acquirer; become a party to the agreement would be the past event. In the case of internally developed brand, the developer should claim ownership on the brand; otherwise a formal registration would provide a legal ownership to the developer. Obviously, the development process or registration could serve as the past event, in this case. Hence, the critical issue for debate in the case of brand as an asset is its ability in generating future economic benefits.

In the case of external acquisition, there is always a fundamental belief that a business firm might not have acquired the brand if it generates no future economic benefits; this belief is valid, at least, at the time of acquisition. However, it is controversial to decide whether an internally developed brand generates future economic benefits. There is always a question whether resources invested in “brand development” generate future economic benefits or the investments just only generating current economic benefits. If the invested resources generate future economic benefits, there is no reason for not treating the investments as assets. On the other hand, if the resources invested only generating current economic benefits, these investments would be treated as expenses (revenue expenditure). The MASB Framework distinguishes the 2 circumstances. The MASB Framework paragraph 59 states that there is a close association between incurring expenditure and generating assets but the two do not necessarily coincide. Hence, when an entity incurs expenditure, this may provide evidence that future economic benefits were sought but is not conclusive proof that an item satisfying the definition of an asset has been obtained (MASB, 2007).

Based on the discussion, there is no reason for not treating a brand as an asset to the business firm if it demonstrates the 3 attributes of assets i.e. controllability, past event; and probable inflow of future economic benefits.

FINANCIAL REPORTING OF BRANDS IN MALAYSIA

There are two main financial reporting standards which are relevant to financial reporting of intangible assets, in general, and brands, specifically. The two financial reporting standards are FRS 138 Intangible Assets (MASB, 2006) and FRS 3 Business Combinations (MASB, 2004). According to FRS 138, an intangible asset is defined as an identifiable non-monetary asset without physical substance (MASB, 2006). The Standard prescribes that an asset meets the identifiability criterion when it is separable or arises from contractual right. A brand is identifiable, i.e. could be separated from its business firm or arises from a contractual right; non-monetary and without physical substance. Hence, financial reporting of brands falls within the scope of FRS 138 Intangible Assets. Indeed, brands are intangible assets, for reporting purposes.

FRS 138 (MASB, 2006) prescribes that an intangible asset shall be recognised if, and only if:
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(a) it is probable that the expected future economic benefits that are attributable to the asset will flow to the entity; and
(b) the cost of the asset can be measured reliably.

At initial recognition, an intangible asset shall be measured at cost. Subsequent to initial recognition, business firms shall choose either the cost model or revaluation model. The cost model allows business firms to carry their intangible assets at cost less any accumulated amortization and any accumulated impairment losses. On the other hand, a revaluation model allows business firms to carry their intangible assets at revalued amount less any accumulated amortization and any impairment losses (MASB, 2006).

FRS 3 deals with intangible assets (and brands, therefore) acquired via business combinations. FRS 3 prescribes that the acquirer, in a business combination, shall recognise separately the acquiree’s identifiable assets, liabilities and contingent liabilities at the acquisition date. This includes the recognition of intangible assets of the acquiree, if the fair value of the intangible assets can be measured reliably. To operational this, FRS 3 refers to FRS 138 for recognition and measurement of the intangible assets (and brands) acquired via business combinations. This means that the acquirer recognises as an asset separately from goodwill and in-process research and development project of the acquiree if the asset meets the definition of an intangible asset and its fair value can be measured reliably. FRS 138 provides guidance on determining whether the fair value of an intangible asset acquired in a business combination can be measured reliably (MASB, 2004).

In brief, business firms could apply financial reporting standards on intangible assets and business combinations for financial reporting of brands. However, this is inconsistent with the brand recognition phenomenon observed in the case of top 50 most valuable brands in Malaysia. As noted earlier, 90% of the business firms of the top 50 most valuable brands (and their business firms) have not recorded brands as their intangible assets on their balance sheets for the financial year 2007. The total value of brands recognized only worth less than 0.02% of the total assets of these business firms in the year of 2007.

RECOGNITION AND MEASUREMENT ISSUES

Despite the availability of financial reporting standards for brands, recognition and measurement of brands onto the balance sheets of reporting entities remains as an issue. FRS 138 prescribes that the recognition of an item as an intangible asset requires an entity to demonstrate that the item meets the definition of an intangible asset and the recognition criteria. Earlier discussion concludes that brands meet the definition of intangible assets under the scope of FRS 138. The two recognition criteria which include probable inflow of future economic benefits and measurement reliability may post as hurdles for recognition of brands. In fact, the crucial fact for recognition of a brand is very much depending on the way
a brand is acquired or created i.e. whether the brand is separately acquired, acquired via business combinations or internally developed.

In the case of probable future economic benefits, it is important to differentiate between capital expenditure and revenue expenditure while looking into investments in brands. If the expenditure results in inflow of future economic benefits, the investment expenditure is capital in nature and fulfilling that asset recognition criterion. On the other hand, if the expenditure results only in current economic benefits i.e. current revenue, the investment expenditure is revenue in nature and not fulfilling that asset recognition criterion.

In separate acquisition and acquisition via business combinations, it is a fundamental presumption that the investments in brands, if identifiable in the case of business combinations, are capital in nature. Under the normal circumstance, no business firms would be willing to acquire items that would not contribute to future economic benefits, at least at the time of acquisition. Subsequent to the initial acquisition, a reduction or depletion of future economic benefits would result in impairment of the assets. Therefore, brands separately acquired and acquired via business combinations would have no problem for their recognition onto the balance sheets of the acquiring business firms.

For internally developed brands, it is debatable that the brands are assets i.e. debatable whether the brands generate future economic benefits or the associated investments were made to generate only current economic benefits. In fact, FRS 138 prohibits business firms to recognise internally developed brands as assets. Together with internally developed brands, the FRS 138 also specifically prohibits the recognition as intangible assets of mastheads, publishing titles, customer lists and items similar in substance that are internally generated. The MASB\(^1\) believed that internally generated intangible items of this kind would rarely, and perhaps never, meet the recognition criteria in FRS 138 and to avoid any misunderstanding, MASB decided to set out this conclusion in the form of an explicit prohibition (MASB, 2006).

The second recognition criterion clearly states that the cost or value of the assets, to be recognized, can be measured reliably. It is not only about how to measure but the measurement needs to be reliable. The MASB Framework defines reliability\(^2\) as one of the principal characteristics for decision usefulness i.e. an attribute that makes the information provided in financial statements decision useful to users. Information, measurement and its bases in this case, has the quality of reliability when it is free from material error and bias and can be depended upon by users to represent faithfully that which it either purports to represent or could reasonably be expected to represent (MASB, 2007).

FRS 138 prescribes a number of measurement bases\(^3\) for recognition of intangible assets (brands). For separate acquisition, FRS 138 acknowledges that under normal circumstance, the price an entity pays to acquire separately an intangible asset reflects expectations about
the probability that the expected future economic benefits embodied in the asset will flow to the entity. In addition, the cost of a separately acquired intangible asset can usually be measured reliably. This is particularly so when the purchase consideration is in the form of cash or monetary assets (MASB, 2006).

In accordance with FRS 3, if an intangible asset is acquired in a business combination, the cost of that intangible asset is its fair value at the acquisition date (MASB, 2004). In a business combination, acquirer paid a lump sum (fair value of the acquired entity) for the acquisition instead of item by item (assets or liabilities), there is a need to allocate how much of the fair value attributable to intangible assets and brands identified, if any. In estimating this fair value for allocation, FRS 138 prescribes that quoted market prices in an active market provide the most reliable estimate of the fair value of an intangible asset (brands, in this case). The appropriate market price is usually the current bid price. If current bid prices are unavailable, the price of the most recent similar transaction may provide a basis from which to estimate fair value, provided that there has not been a significant change in economic circumstances between the transaction date and the date at which the asset’s fair value is estimated (MASB, 2006). If no active market exists for an intangible asset, its fair value is the amount that the entity would have paid for the asset, at the acquisition date, in an arm’s length transaction between knowledgeable and willing parties, on the basis of the best information available. In determining this amount, an entity considers the outcome of recent transactions for similar assets (MASB, 2006).

Brand is a typical intangible asset which is unique and not standardised; it is not easily tradable in a structured market place like a security market. If there is any transaction, it could be an off-market deal i.e. a direct deal between the buyer and seller. Hence, it is not common for a brand to have a market, before an active market comes into picture. Operationally, it is not easy to have an active market which provides market price for a particular brand. It is also rare to have a transaction on brand, not talking about a transaction for a brand in similar nature, which would make a reference to the fair value of a recent transaction difficult, too.

Alternatively, for entities which are regularly involved in the purchase and sale of unique intangible assets may have developed techniques for estimating their fair values indirectly. These techniques may be used for initial measurement of an intangible asset acquired in a business combination if their objective is to estimate fair value and if they reflect current transactions and practices in the industry to which the asset belongs (MASB, 2006). These techniques include, when appropriate:

(a) applying multiples reflecting current market transactions to indicators that drive the profitability of the asset (such as revenue, market shares and operating profit) or to the royalty stream that could be obtained from licensing the intangible asset to another party in an arm’s length transaction (as in the ‘relief from royalty’ approach); or

(b) discounting estimated future net cash flows from the asset.
This alternative way of estimating the fair value of brands is more practical, in the absence of market prices from active markets, for business firms to allocate the fair value to the identified brands, if any, acquired during business combinations. The measurement bases prescribe in FRS 138 are common valuation techniques i.e. the earnings multiples and discounted cash flow, used by the professional valuers in the industry for intangible asset and brand valuation. This is especially so the international valuers which have main and representative offices operating in many countries. The setback about this fair value estimation approach is its measurement reliability. Would the measurement estimated free from material error and bias? And can be depended upon by users to represent faithfully that which it either purports to represent or could reasonably be expected to represent? Despite saying this, this is not a significant issue as in substance the brands had been transacted as part of the business combination. There is a fair value for the brand, collectively with the total assets and liabilities of the acquiree, but not in isolation. The estimation is not for a pending transaction but only for fair value allocation.

In brief, recognition of internally developed brands is prohibited by the existing financial reporting standard. In the case of the 50 business firms, their brands are internally developed and built since the inception of the firms. Some of these brands have been with the business firms since their inception 40 years ago, for instance, Maybank, Genting, Public Bank, Sime Darby, Malaysia Airlines and etc. Some of these brands were revitalized and some were newly created after some major corporate exercises, for instance, TM, CIMB, Tenaga, Ambank, Lafarge and etc. Therefore, this is the main reason why the 50 business firms owned the top brands have not been recognizing them as intangible assets on their balance sheets. Even though the existing financial reporting standards provide rooms for the recognition of brands for both separate acquisition and acquisition via business combinations, measurement reliability had made recognition of these brands impossible. Furthermore, none of these top brands are externally acquired, either on separate acquisitions or via business combinations.

**THE WAY FORWARD**

Discussion thus far indicates that there are various measurement bases and valuation approaches available in practice. In fact, some of these measurement bases have been prescribed in the relevant financial reporting standards for intangible assets and brands. These measurement bases include acquisition cost, fair market value, estimated fair value using earnings multiples as well as discounted cash flow methods. The crucial issue is measurement reliability i.e. how reliable is the measurement bases used instead of how to measure. In turn, measurement reliability is one of the two criteria for recognition of brands (in general, all assets).

Again, a visit to the MASB Framework about reliability would be fruitful. Besides reliability, another principal qualitative characteristic of decision useful information is relevance. In fact, relevance has been the focus of financial reporting and accounting
information. In the extant accounting literature, researchers used relevance\(^\text{84}\) as a proxy to test decision usefulness of financial reporting and accounting information. On the other hand, similar literature and studies on reliability as a proxy to decision usefulness is rare. However, relevance has not been one of the asset recognition criteria; instead measurement reliability is crucial in asset recognition. This indicates that reliability always prevail as compared to relevance. An item might not be recognised as asset if it cannot be measured reliably despite the fact that its recognition would make financial reporting relevant. This seems to be a sensible argument despite the fact that the MASB Framework emphasizes on a balancing, or trade-off, between qualitative characteristics is often necessary in practice. On this note, the MASB Framework states that the aim is to achieve an appropriate balance among the characteristics in order to meet the objective of financial statements. The relative importance of the characteristics in different cases is a matter of professional judgement (MASB, 2007).

Therefore, it is timely for financial reporting stakeholders to review measurement reliability as an asset recognition criterion. The question here is should measurement reliability be removed from the criteria? In 2006, the International Accounting Standards Board (IASB) issued a Discussion Paper\(^\text{85}\) on Conceptual Framework. The Discussion Paper expresses its preliminary views on an improved Conceptual Framework for financial reporting which focuses on the objective of financial reporting and qualitative characteristics of decision-useful financial reporting information. One of the major proposals in the Discussion Paper is to replace Reliability with Faithful Representation as a principal qualitative characteristic. Under the existing IASB Framework, faithful representation is one of five characteristics of reliability. As the main characteristic of reliability, information must represent faithfully the transactions and other events it either purports to represent or could reasonably be expected to represent. If this definition is to be compared to the definition of reliability\(^\text{86}\), the definition of faithful representation is the second part of the definition of reliability. The first part of the definition of reliability i.e. ‘free from material error and bias’ has been removed. Reliability includes free from error and bias as well as faithful representation. Grounding on this principle, measurement needs to be faithfully representational but may not be free from error or bias. In fact, all estimations subject to measurement error; measurement is indeed estimation.

The faithful representation principle is crucial for recognition of brands onto the balance sheets of business firms. Operationally, it is easier for reporting entities to find a measurement that is faithfully representational to the brand beings measured as compared to a measurement which is reliable. This principle would definitely have practical significance for allocation of fair value to brands acquired via business combinations as well as internally developed brands. Besides, this principle is also crucial to support the pervasive use of fair value measurement. This is especially so in estimating fair value using various acceptable valuation techniques in the absence of market price and active market. As discussed earlier, it is unlikely that there is a structured market for brands due to their individual uniqueness.
Lastly, since most of the business firms internally developed their brands, the prohibition of recognizing internally developed brands by FRS 138 needs to be reconsidered. However, the concern of MASB (IASC) should not be taken lightly. Even though measurement reliability is no more an issue if the qualitative characteristic is to be removed and replaced with faithful representation, capability in generating future economic benefits remains crucial to asset recognition. Therefore, it is important to ascertain whether a particular brand could generate future economic benefits instead of only generate current revenue. This requires significant support from empirical evidence. Many studies confirmed the role and contribution of accounting research and empirical evidence in standard setting (see Barth, Beaver and Landman, 2001). In this respect, there is a need for further study on the capacity of brands in generating future economic benefits instead of merely generation of current revenue.

76 Brand Finance plc (www.brandfinance.com) is an independent consultant focused on the management and valuation of brands and branded businesses. Since 1996, Brand Finance has performed hundreds of brand valuations with an aggregate value of over $150 billion. The valuations have been in support of a variety of business needs. Brand Finance is headquartered in London and has representative offices in Toronto, New York, São Paulo, Madrid, Amsterdam, Paris, Zagreb, Dubai, Bangalore, Colombo, Singapore, Hong Kong, Sydney, Istanbul, Cape Town and Geneva (Brand Finance Institute, 2007).
77 The MASB Framework is similar in all material respects to the IASC’s Framework for the Preparation and Presentation of Financial Statements issued in 1989. The IASC Framework is also known as IASB Framework after the formation of IASB in the year of 2001.
78 Monetary assets are money held and assets to be received in fixed or determinable amounts of money (MASB, 2006).
79 The Standard defines separable as capability of being separated or divided from the business entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, asset or liability (MASB, 2006).
80 FRS 136 Impairment of Assets prescribes the financial reporting and treatment for impairment losses on property, plant and equipment as well as intangible assets (MASB, 2006).
81 Since the MASB adopted FRS 138 from IAS 38 issued by the IASC, it has also adopted the belief of IASC in the standard.
82 The MASB Framework also states that to be reliable, information must also have the following characteristics: faithful representation, substance over form, neutrality, prudence and completeness.
83 None of these measurement bases are for internally developed brands as the Standard prohibits their recognition.
84 In the extant accounting literature, study in such nature is called value relevance study which becomes the focus of accounting researchers in the mid of 1990 (see Barth, Beaver and Landman, 2001).
85 The Discussion Paper was issued as an Exposure Draft in May 2007.
86 Information has the quality of reliability when it is free from material error and bias and can be depended upon by users to represent faithfully that which it either purports to represent or could reasonably be expected to represent.
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**APPENDIX A**

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Brand</th>
<th>Business Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Petronas</td>
<td>Petronas Group</td>
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<tr>
<td>2</td>
<td>Maybank</td>
<td>Malayan Banking</td>
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<tr>
<td>3</td>
<td>TM</td>
<td>Telekom Malaysia</td>
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<td>4</td>
<td>Genting</td>
<td>Genting</td>
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<tr>
<td>5</td>
<td>CIMB</td>
<td>Bumiputra Commerce Holdings</td>
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<td>6</td>
<td>Tenaga</td>
<td>Tenaga Nasional</td>
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<tr>
<td>7</td>
<td>Maxis</td>
<td>Maxis Communications</td>
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<tr>
<td>8</td>
<td>Public Bank</td>
<td>Public Bank</td>
</tr>
<tr>
<td>9</td>
<td>Sime Darby</td>
<td>Sime Darby</td>
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<tr>
<td>10</td>
<td>Malaysia Airlines</td>
<td>Malaysia Airlines</td>
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<td>11</td>
<td>Resorts World</td>
<td>Resorts World</td>
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<tr>
<td>12</td>
<td>Hong Leong</td>
<td>Hong Leong Group</td>
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<td>13</td>
<td>YTL</td>
<td>YTL Corp</td>
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<td>14</td>
<td>Astro</td>
<td>Astro All Asia Networks</td>
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<tr>
<td>15</td>
<td>Toto</td>
<td>Berjaya Sport Toto</td>
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<tr>
<td>Ranking</td>
<td>Brand</td>
<td>Business Firm</td>
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<tr>
<td>16</td>
<td>DIGI</td>
<td>Digi.com</td>
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<tr>
<td>17</td>
<td>Lion Corp</td>
<td>Lion Corp</td>
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<tr>
<td>18</td>
<td>RHB</td>
<td>RHB Capital</td>
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<tr>
<td>19</td>
<td>Proton</td>
<td>Proton Holdings</td>
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<td>Magnum</td>
<td>Magnum Corp</td>
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<td>Ambank</td>
<td>AMMB Holdings</td>
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<td>Guinness Anchor</td>
<td>Guinness Anchor</td>
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<td>KLK</td>
<td>Kuala Lumpur Kepong</td>
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<td>26</td>
<td>PLUS</td>
<td>Plus Expressway</td>
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<td>Berjaya</td>
<td>Berjaya Corp</td>
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<td>Affin</td>
<td>Affin Holdings</td>
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<td>Lafarge Malayan Cement</td>
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<td>31</td>
<td>The STAR</td>
<td>Star Publication</td>
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<td>Air Asia</td>
<td>Airasia</td>
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<td>Hap Seng</td>
<td>Hap Seng Consolidated</td>
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<td>Megan Media</td>
<td>Megan Media Holdings</td>
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<td>Kumpulan Guthrie</td>
<td>Kumpulan Guthrie</td>
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<td>SP Setia</td>
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<td>38</td>
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<td>Kurnia Asia</td>
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<td>39</td>
<td>Kulim</td>
<td>Kulim Malaysia</td>
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<tr>
<td>40</td>
<td>Aminvestment Group</td>
<td>Aminvestment Group</td>
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<tr>
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<tr>
<td>42</td>
<td>New Straits Times</td>
<td>The New Straits Times Press</td>
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<td>43</td>
<td>Ranhill</td>
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<td>44</td>
<td>IJM</td>
<td>IJM Corp</td>
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<td>45</td>
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<td>KLCC Property Holdings</td>
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<tr>
<td>46</td>
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<td>IGB Corp</td>
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<td>47</td>
<td>Gamuda</td>
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<tr>
<td>48</td>
<td>Ta Ann</td>
<td>Ta Ann Holdings</td>
</tr>
<tr>
<td>49</td>
<td>POS</td>
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<tr>
<td>50</td>
<td>Island &amp; Peninsular</td>
<td>Island &amp; Peninsular Group</td>
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KNOWLEDGE CAPABILITIES AS THE MECHANISM OF SUSTAINING COMPETITIVE ADVANTAGE IN THE NEW COMPETITIVE LANDSCAPE OF THE 21ST CENTURY

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ABSTRACT

After eight years of business undertakings in the competitive landscape of 21st century, many firms have experienced a far more competitive and unprecedented business environment than they expected before. Sustaining a firm’s competitive advantage may not be just as simple as swimming away from the bloody red ocean, creating uncontested markets and making their competitive environment irrelevant (Kim and Mauborgne, 2005), or creating barriers of entry (Porter, 1985; Greenwald and Kahn, 2005). The reason that competitive advantage which is created in the blue ocean may not be able to be sustained or is easily imitated, duplicated and replaced by rivals. The Body Shop’s blue ocean got contaminated by a host of imitators like Bath & Body. Similarly, AirAsia’s blue ocean of low price tickets lasted less than a decade when FireFly imitated its no-frill strategy and Malaysia Airlines combated AirAsia’s low price strategy by offering competitive prices to customers.

Value innovation, creating differentiation and cost leadership, and resources acquiring are the major thrusts of competitive advantage. How these thrusts create advantages heavily relies on the firm’s capability particularly in know-how. It is therefore a firm’s effectiveness in knowledge management implementation which plays a vital role in creating sources of sustainable competitive advantage. The objective of this paper is therefore to discuss the mechanisms of sustaining a competitive advantage focus particularly on knowledge capabilities differentials.

Keywords: knowledge management, sustainable competitive advantage, intellectual capital and knowledge-based competition.

INTRODUCTION

The new competitive landscape in the 21st century is driven by the emergence of technology innovation, the internet, the trend of globalization and economy liberalization, knowledge creation and value innovation; and these drivers have moulded the marketplace to become more competitive as the momentum of knowledge creation and innovation increasing drastically. The
market place is customer oriented as vast knowledge has been developed (and continues to create more) which is made available to create customers’ needs and to fulfill customers’ wants. Many firms have invested in the development of intellectual capital, especially human capital as this is the key agent of knowledge creation. Globalization and economic liberalization however have increased the mobility of the workforce and hence has also increased the transfer of knowledge and at the same time has liquidated the knowledge pool in many firms which may lead to loss of knowledge in those firms.

Knowledge has become to be considered as a source of sustainable competitive advantage (Choi & Lee, 2002; Allard and Holsapple, 2002; Johannessen, et al, 1999) Recognizing the importance of knowledge, many firms have invested a great deal in developing knowledge management systems and finding ways to implement these effectively. From an academic perspective, many knowledge management scholars are actively studying knowledge management and trying to enhance the value, systems and models to effectively and efficiently manage knowledge. Literally, knowledge management can be grouped into two different perspectives. The first one is a technical perspective which is comprised of a firms’ knowledge management infrastructure, e.g. information technology and information system. The second one is a social perspective which comprises the knowledge context of a firm, firms’ strategic knowledge management, being a knowledge leader, knowledge culture, knowledge enablers, knowledge sharing, knowledge acquisition, generation, and internalization and externalization efforts. Successful knowledge management implementation requires a strategic hybrid of both perspectives. The objective of this paper is to conduct an in-depth study of the social perspective of knowledge management and to produce a holistic and integrated knowledge management model for achieving sustainable competitive advantage. This paper commences with a discussion of sources of sustainable competitive advantage in the 21st century, and continues with an in-depth study of the social perspective of knowledge management, and finally provides a knowledge management model for sustainable competitive advantage.

**SOURCES OF SUSTAINABLE COMPETITIVE Advantage IN THE 21ST CENTURY**

Generally, competitive advantage has been defined as an advantage one firm has over a competitor or group of competitors in a given market, strategic group or industry (Kay 1993). Fahey (1989) defines competitive advantage as anything that favorably distinguishes a firm or its products from those of its competitors from the viewpoint of its customers or end-users. However, the focus here is not merely on the issue of a firm’s competitive advantage, but to understand its sustainability over time. Sustainability does not refer to a particular period of calendar time, nor does it imply that advantages persist indefinitely (McGrath et al., 1995) but rather depends on the possibility and extent of competitive duplication. Conceivably possessing competitive advantage is not the firm destination, but to sustain a firms’ competitive advantage would be more meaningful and paramount.

In the 21st century competitive landscape, knowledge-based competition (Lang, 2001, Jackson, et al, 2003) has been perceived as the most important management strategy for firms to sustain
their competitive advantage. Nevertheless, competitive-based strategy (Porter, 1980, 1981, 1985) and the resource-based concept remain as popular as ever despite the emergence of many new strategic management concepts such as quote-based competition (Chung and Chuwonganant, 2007, Bessembinder, 2003 and Klock and McCormick, 2002), and value-based competition (Kim and Mauborgne, 2005). Discussions and studies on competitive-based are actively carried out by management scholars and are being widely recognized by business practitioners. Weapons of competitive-based strategy include organization capital which cover the capital of a firm, culture, structure, organization learning (Gregorio, et al., 2006), adaptation, new relationships and creativity (Julieta, et al., 2007), integration of the internet technology into a firm’s overall strategy (Pavic, et al., 2007), knowledge (Grønhaug and Ottesen, 2007), ownership-based, access-based and proficiency based strategy (Ma, 1999), and other competition strategies including timing and positioning, pre-emption, direct attack, flanking attack, encirclement and concentration (Ma, 2004). Another key strategic management concept which remains important in the 21st century is the Resource-Based view concept. The concept of the Resource Based view (Barney, 1986, 1991, Wernerfelt, 1984 and Peteraf, 1993) remains in a central position in strategic management theory. Barney (1986) focuses on the implementation of a value-creating strategy to achieve competitive advantage and this value is not simultaneously being implemented by any current or potential competitors, whereas sustainable competitive advantage as implemented as a value-creating strategy and is not simultaneously being implemented by any current or potential competitor or when other firms are unable to duplicate the benefits of this strategy (Barney, 1991, p.102).

The importance of knowledge in firm management strategy has long been recognized by management scholars and firms and it continues to serve as a source of sustainable competitive advantage in the 21st century. Peter Drucker (1999) explained that the most important contribution management needs to make in the 21st century is to increase the productivity of knowledge work and of knowledge workers. Knowledge-based competition and knowledge management systems have emerged in the strategic management literature as key sources of sustainable competitive advantage (Ju, et al., 2006; Rezgui, 2006; Sharkie, 2003). Sharkie (2003) argues that the development of sustainable competitive advantage is a vital management function and is an important requirement in the nurturing of a knowledge-creating environment to enable the organization to exploit and develop resources better than rivals and to create sufficient knowledge to address the industry’s future success factors. Kotze (2002) argues that the new competitive paradigm in the 21st century should emphasize value, time and mobility, knowledge and intellectual capital, flexibility, quickness and innovation. A positive organization culture has been perceived as a key source of sustainable competitive advantage. A culture of strategic thinking, organizational learning and knowledge is vital in the contribution to sustainable competitive advantage in this competitive landscape.

Sources of sustainable competitive advantage in the 21st century have become more tacit, intangible and knowledge-based. Though cost and differential advantage concepts, resource-based concepts and value-based concepts remain the core strategies for firms achieving strategic competitive advantage, the application and implementation of these strategies are now heavily reliant on the application of knowledge management. The knowledge paradigm of 21st century is as follows:

- Knowledge is power
Knowledge sharing creates positive organization performance (Mc Keen et al 2006; Choi & Lee 2003; DeTienne & Jackson 2001; Liu et al 2004)

DEVELOPING FIRM’S KNOWLEDGE CAPABILITIES AS MECHANISM OF SUSTAINABLE COMPETITIVE ADVANTAGE

The capability-based theory of sustained competitive advantage has gained prominence in strategy literature over the last decade (Weerawaredena and O’Cass, 2003) and this suggests that a firm can achieve competitive advantage through its distinctive or core capabilities (Grant, 1991; Hayes, et al, 1996; Prahalad and Hammel, 1990). According to the resource-based view, sustainable competitive advantage can be achieved by continuously developing existing and creating new resources and capabilities in response to rapidly changing market condition. Coyne (1986) develops the concept of a ‘capability gap’ to determine whether a firm’s competitive advantage actually exists. Day (1994) and Day and Wensley (1988) categorize capabilities into four categories, which are “inside-out” process, “outside-in” process, marketing, and information technology. “Inside-out” allows a firm to improve operation systems, production efficiency, reduce costs and increase competitiveness. “Outside-in” allows a firm to engage in new market development, customer relationships and networking. Marketing capabilities allows a firm to engage in strategic marketing planning; and information technology capabilities allow a firm to diffuse market information effectively across all relevant functional areas and create market knowledge and innovation.

Hall (1992) has categorized the concepts of capabilities differentials into two groups. The first group is based on competencies and the second group is based on assets. The former group emphasizes a firm’s functional differentials and cultural differentials; while the latter group emphasizes a firm’s positional differentials and regulatory differentials. As the knowledge-based competition has become the new paradigm in the 21st century, knowledge capabilities have become a necessity to firm’s sustainable competitive advantage. Strategic knowledge management is the art and the science of creating, distributing, storing and leveraging knowledge underpinning a firms’ corporate strategy via the support from the technological (information systems and information technology) and social (firm’s structure, culture and people) systems of knowledge management. The ability of firm knowledge management in achieving sustainable competitive advantage relies on its knowledge capabilities. Knowledge capabilities refers to a firm’s endowment of resources in both human and system forms, in creating knowledge, which develops distinctive and core capabilities in that firm. It includes the ability of acquiring the know-how of employees which may result in distinctive competencies and assist the firm and set it apart form its competitors. To achieve sustainable competitive advantage, a firm requires knowledge capabilities which contribute to dynamic capabilities in creating sources of sustainable competitive advantage. There are many ways to review these capabilities. A firm may question “what do we know?”, “what don’t we know?”, “What must we know?”, “How can we gain this knowledge?”. The focus here is to study the required knowledge, the knowledge capabilities of firm.
THE KNOWLEDGE CAPABILITIES

In order to achieve sustainable competitive advantage, a firm may develop its knowledge capacities from two aspects. The first aspect is the firm’s functional capabilities, and the second aspect is the firm’s knowledge infrastructure capabilities.

A firm’s functional capabilities include a firm’s learning curve effects, innovation, strategic management, corporate entrepreneurship, and new organizational forms. A firm which possesses these capabilities would be able to perform individual functions more effectively compared to its competitors and also from the inability of existing or potential competitors to imitate or easily follow suit. Important intangible resources for those of functional capabilities differentials are innovative capabilities, tacit knowledge, skills, experience of employees, suppliers, distributors, and other specific capabilities in a company, e.g. ability to communicate with customer and establish strong customer relationships, ability to involve people, flexibility in managing change and diversity, and intuition (creativity and ability to innovate).

A knowledge acquisition-oriented firm obtains, creates and accumulates new knowledge. The concept of a learning curve effect requires an aggressive attempt at leveraging knowledge and knowledge accumulation. Development of knowledge databases which store best practices, expert directories and market intelligence, and sharing of best practices from one part of the firm to another, through databases, but also through personal interaction and sharing events are crucial (Civi, 2000). Innovation is a subset of knowledge acquisition where new knowledge is developed from the existing knowledge. Innovation requires a dynamic style of knowledge management (Choi and Lee, 2003) to create superior knowledge. Strategic management is a firm’s agility in a turbulent business environment and ability to make appropriate adjustments to its resource base. A firm may acquire, develop and reconfigure its knowledge to exploit new opportunities and avoid threats. Corporate entrepreneurship is about a firm’s capability to develop new products or services through continuous innovation to meet demands. A knowledge-based firm may go through the three phases of innovation, knowledge development, knowledge utilization and knowledge capitalization (Kalling, 2003). Knowledge development requires a combination of people, processes and technology resources to explore and test new ideas. Knowledge utilization is the testing of feasibility and viability of the ideas; it requires a positive knowledge culture which encourages innovative behavior. Knowledge capitalization helps firm to achieve competitive advantage from innovation. The practice of a learning organization, effective change management, careful assessment of implementation costs and benefits, are crucial in ensuring the innovation is successfully implemented. The practice of a learning organization helps firms to develop higher levels of knowledge and skill, and effective change management helps firms to control and monitor changes in a turbulent business environment.

New forms of firms such as the learning organization, the knowledge-based firm, a network or virtual organization, which all emphasize an appropriate knowledge structure for effective implementation of knowledge management. The knowledge structure that promotes collective

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behavior and flexibility will encourage sharing and collaboration across boundaries with a functional area, firm or across the supply chain. According to Gold et al (2001) the optimization of knowledge sharing within a functional department in many times cases may suboptimize the sharing of knowledge across the firm; and the optimization of knowledge sharing within the firm can suboptimize sharing across a supply chain. The creation of firm knowledge requires the sharing and dissemination of ideas, information, and experiences of a person, a group or a functional department of the firm. It is believe that individuals interaction in a positive knowledge culture firm promotes learning and collaboration between individuals and this is the basis for the socialization of knowledge (Nonaka and Konno, 1998).

**KNOWLEDGE INFRASTRUCTURE CAPABILITIES**

A firm’s knowledge infrastructure capabilities are developed based on its technology, structure and culture. It is a supportive framework for resourcing, decision making and innovative practices, so that knowledge activities can be successfully pursued (Debowski, 2006) Technology dimensions in knowledge management include business intelligence, collaboration, distributed learning, knowledge discovery, knowledge mapping, and opportunity generation as well as security (Leonard, 1995). These knowledge management technologies enable a firm to generate knowledge according to its competitive advantage, business strategies, competition as well as the economic conditions it is facing. Knowledge management technologies also allow individuals in firms to share and collaborate on knowledge and encourage new knowledge creation. Knowledge discovery technologies allow the firm to find new knowledge internally and externally; knowledge mapping technologies allow the firm to effectively track sources of knowledge, creating a catalog of internal organizational knowledge (Gold et al, 2001). Knowledge application technologies allow the firm to utilize and practice its existing knowledge. Opportunity generation technologies allow the firm to develop its business intelligence system and marketing intelligence systems by tracking knowledge from its stakeholders. Appendix A provides a summary of various tools and technologies available for knowledge management. To sustain the competitive advantage achieved from their technologies infrastructure, a firm must ensure the security and appropriate use of the knowledge generated.

A firm’s structure is important in encouraging knowledge creation, knowledge sharing and leveraging across the internal firm’s boundaries. Few knowledge management firm structures have been developed. Sanchez & Mahoney (1996) and Nonaka & Takeuchi (1995) suggest a knowledge management friendly organizational structure, namely a modular organizational structure and a hypertext organization structure respectively. The modular organizational structure suggests a combination with a modular product design which may reduce the costs of coordination and adaptation, and hence increasing strategic flexibility. The five stages hypertext organization, which combines two traditional structures – the hierarchy (use the strength of bureaucratic efficiency and standardization) and the task force structure (flexibility and dynamism) catalogs, categories and synthesize knowledge and information according to a firm’s priorities for the future. Along with the structure, a firm’s system of rewards and incentives can determine the capacity of knowledge creation, application and sharing. According to O’Dell and Grayson (1998), a firm’s incentive systems should be structured so
that workers are motivated and rewarded, for taking the time to create new knowledge (learn and attend training), share their knowledge, and help others outside their own departments. Gold et al (2001) claim that the overall knowledge management structure is made up of a combination of a firm’s formal organizational structure plus knowledge management structural dimensions and incentive systems.

The most crucial element to achieve sustainable competitive advantage is instilling a knowledge culture in the firm. Culture is the basic building block to a firm’s knowledge capabilities. It is believed that firms which achieve a sustainable competitive advantage build a knowledge friendly environment that fosters a desire for knowledge among their employees and that ensures its continual creating, sharing, applying and leveraging of knowledge. The characteristics of a knowledge friendly culture are:

- Employees appreciate teamwork
- Minimal knowledge hoarding occurs,
- Perception of a mind set of knowledge as power is not acceptable.
- Active and positive knowledge sharing occurs
- Employees accept new ideas and like exposure to new situations
- Employees perceive learning as part of their job descriptions
- High cross-functional team spirit
- Effective communication across departments, bottom-to-top and top-to-bottom
- Trust and belief in others’ good intentions, openness and honesty
- Knowledge sharing organizational structure which encourages participative decision making (Griffen and Moorhead, 2001)
- Ease of information flow (Syed-Ikhsan and Rowland, 2004).

Building an effective knowledge culture requires a range of strategies to ensure the values inherent in knowledge management are enacted by each employee (Debowskii, 2006). He identifies four elements of knowledge enablers which influence and contribute to the creation of an effective and positive knowledge community. These knowledge enablers operate over several levels of the organization and are grouped into the four elements, namely core values, structural support, enacted values and interaction with colleagues. Debowski defines core values as those values which are believed to be essential to the organization’s growth and achievement of its goals. In the case of a knowledge community, these might include collaboration, communication, interaction, innovation, adaptation, learning orientation, trust, and positive perception on knowledge. Debowski (2006) argues that knowledge communities need to nurture innovative and creative thinking, encourage flexible, adaptable behavior and a strong communal focus to enhance collaboration and sharing across organizational boundaries, as well as instilling strong learning orientation and affirm the value place on knowledge workers by providing opportunities of attending training, conferences, collaborating with others, share ideas, communicate and work across organizational boundaries.
TABLE 1: KNOWLEDGE CULTURE

<table>
<thead>
<tr>
<th>Core values</th>
<th>Structural support</th>
<th>Enacted values</th>
<th>Interaction with colleagues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration</td>
<td>Organizational structure</td>
<td>Models of knowledge creation</td>
<td>Quality of interaction</td>
</tr>
<tr>
<td>Communication</td>
<td>Transparent decision making</td>
<td>creation behavior</td>
<td>Focus of interaction</td>
</tr>
<tr>
<td>Interaction</td>
<td>Openness &amp; Info. access</td>
<td>Knowledge leaders</td>
<td>Mentorship</td>
</tr>
<tr>
<td>Innovation</td>
<td>Problem solving</td>
<td>Opportunities to collaborate</td>
<td>Team behavior</td>
</tr>
<tr>
<td>Adaptation</td>
<td>Effective communication channels</td>
<td>Encourage to collaborate</td>
<td>Co-worker interaction</td>
</tr>
<tr>
<td>Learning orientation</td>
<td>Human resources management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge is valued</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge should be shared</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Debowski (2006)

As mentioned earlier, a firm’s structure is vital in knowledge creation, knowledge sharing and knowledge leveraging. Having the appropriate structure would therefore facilitate a conducive knowledge culture in a firm. A dynamic and flexible structure would encourage communication, changes and learning. Transparent organization structure would foster trust, and encourage knowledge sharing and knowledge transfer. Employees are open to accept new knowledge from others and increase collaboration. Effective communication systems encourage learning organization where information and knowledge can be stored, retrieved and shared among all the employees in the firm. The human resources management (HRM) function plays a major role in creating a knowledge culture, as HRM develops the policies, staff appraisal and reward systems, this affects the facilitation of employees’ behavior directly in a conducive knowledge culture. A firm’s enacted values, the values which reflect the employees’ actual daily practices influence directly the knowledge culture of the firm. Employees who are part of a firm’s knowledge management process follow the model of knowledge creation behavior or may become knowledge leaders. The creation of opportunities to explore knowledge with colleagues and the provision of collaborative spaces will also encourage a knowledge culture. The last element, which affects a firm’s knowledge culture, is employees interaction in a firm. Debowski describes that as the quality and focus of employees’ interaction which plays a major role in determining the strength of the knowledge culture in the firm. The communication channels which flow across a firm also play a vital role in facilitating knowledge culture. Supervisory interaction, team interaction, interaction among colleagues and inter-departmental interaction all contribute in the development of a knowledge culture in a firm.
Knowledge capabilities play an important role in a firm’s sustainable competitive advantage. Developing knowledge capabilities will enable firms to create distinctive advantages and effective knowledge management will ensure the sustainability of those advantages. The objective of this paper is to discuss what should the firm do and what effort should they focus on in managing their knowledge in developing a sustaining competitive advantage. As the competitive landscape of the 21st century is mainly driven by knowledge-based competition, which is also the factor affecting the effectiveness of a firm’s resource-based and competitive-based competition, firms have to build knowledge capabilities to create knowledge which may place them in a blue ocean and give them competitive advantage.

Two knowledge capabilities have been discussed in this paper, the knowledge functional capabilities and the knowledge infrastructure capabilities. These two broad aspects have been perceived as the most critical factors that determine a firm’s ability in generating knowledge that contributes to its sustainable competitive advantage.

The limitation of this paper is that it focuses only on the hard aspect of knowledge management strategy and the soft aspect, e.g. the knowledge processes capabilities has not been taken into considerations. Clearly more literature on the soft aspect of knowledge capabilities is needed to address a holistic framework on a firm’s knowledge capabilities in promoting sustainable competitive advantage. It is also hoped that this paper will stimulate this debate and encourage further research.

REFERENCES


**APPENDIX A: SUMMARY OF VARIOUS TOOLS AND TECHNOLOGIES AVAILABLE FOR KNOWLEDGE MANAGEMENT**

| Expert systems | An expert system is regarded as the embodiment within a computer of a knowledge-based component from an expert skill in such a form that the system can offer intelligent advice or make an intelligent decision about a processing function. Expert systems are computer-based programs which are designed to record human expertise (knowledge) and then apply this knowledge to applications in a certain domain. |
| Distributed hypertext systems | Distributed hypertext systems have been concerned with the generation and leveraging of organizational knowledge for more than a dozen years. This system is about representation, access and management of knowledge which embodied Project Xanadu, a global ‘docuverse’ that pre-figured the WWW – and are useful for managing information and knowledge. |
| Document management | This system originally was primarily concerned with providing online access to documents stored as bit-mapped images. Document management technology – already in widespread use in large, information-intensive companies – is likely to become an integral part of virtually every ‘intranet’ in one form or another. |
| Geographic information systems | This system is used as a graphic tool for knowledge mapping. Known by the acronym GIS for short, the technology involves a digitized map, a powerful computer and software that permits the superimposition and manipulation of various kinds of demographic and corporate data on the map. |
| Help desk technology | Help desk technology is primarily concerned with routing request for help from information seeker to the right technical resolution person within an organization. |
| Intranets | Intranets – intra-corporation networks that use the Internet’s IP standard, not only permit sharing of information, but they also view the organization’s information through web browsers like Internet Explorer and Netscape Navigator. |
| Concept mapping | Concept mapping seems to be rooted primarily in educational techniques for improving understanding, retention, and as an aid to writing. A concept map is a picture of the ideas or topics in the information and the ways these ideas or topics are related to each other. It is a visual summary that shows the structure of the material the writer will describe. |
| Semantic networks | Semantic networks are often closely associated with detailed analysis of texts and networks of ideas. One of the important ways they are distinguished form hypertext systems is their support of semantic typing of links. |
Hypertext, known to most people these days by its implementation in the WWW, is sometimes described as a semantic network with cogent at the nodes. At the content itself, the traditional document model, seems to be the driving organizational force not the network of links. In most hypertext documents the links are not semantically typed, although they are typed at times according to the medium of the object displayed by traversing the link.

**Information modeling**

Information modeling is concerned with precise specification of the meaning in a text and in making relationship of meaning explicit, often with the objective of rapid and accurate development of new software applications for business requirements. Some of this essence of information modeling is expressed in the following definition: “the process of eliciting requirements forms domain experts, formulating a complete and precise specification understandable to both domain experts and developers, and refining it using existing implementation mechanisms.

**Conceptual indexes**

Conceptual indexes traditionally map key ideas objects in a single work. An index is a structured sequence – resulting from a thorough and complete analysis of ext, of synthesized access pints to all the information contained in the text. The structured arrangement of the index enables users to locate information efficiently.

**Metadata**

Metadata is simply information added to a document that makes it easier to access and reuse that content. It is also referred to as simply ‘data about data’. Metadata is available in many different forms, including key words in a software help system, the document profile information attached to documents in a document management system and the classification information in a library card catalog.

Source: Gupta et al (2008)
DIFFERENCES IN ORGANISATIONAL COMMITMENT BETWEEN BABY BOOMER AND GENERATION X EMPLOYEES IN AN AUSTRALIAN PUBLIC SECTOR ORGANISATION

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ABSTRACT

This paper reports the results of a study which examined the influence of generational differences on levels of organisational commitment (OC) in a sample of Australian public sector employees. Hierarchical regression analysis showed that after controlling for length of service, education level, gender, and work pressure, generational identity was a significant predictor of OC. Specifically, Generation X employees were found to be less committed to the organisation than their Baby Boomer colleagues. Some implications for managers are discussed.

INTRODUCTION

Business leaders often assert that skilled and committed employees are the only sustainable source of competitive advantage. Despite the fact that corporate downsizing in the 1980s and 1990s has made many people more cynical about such statements, organisational commitment (OC) is an employee attitude highly regarded by employers. Such employees are considered to build better relationships with customers, learn more effectively, be more adaptable to change, and work more efficiently (Mowday 1998). Consequently, human resource policies tend to focus on the recruitment and retention of employees with the skills and attitudes needed for an organisation to remain effective in a changing environment.
However, there is evidence to suggest that traditional human resource assumptions do not reflect the values and attitudes of the generational cohort known as Generation X (Gen X). People within this cohort, born between the mid 1960s and the mid 1980s are said to embrace different values from the generation preceding them. That generation, usually referred to as Baby Boomers (Boomers), was born between the mid 1940s and the mid 1960s. The concept of generational difference stems from the notion that groups of people born around the same time will share common experiences, leading to common cohort attitudes towards such things as work, authority, relationships, and leadership. Over time this common view of the world becomes the perceived ‘generational identity’.

Gen X employees have been variously described as demanding extrinsic rather than intrinsic rewards from their jobs, as being loyal to individuals but not to organisations, as being individualistic rather than collectivist (Sirias, Karp & Brotherton 2007), and as having respect for managerial competence but disdain for hierarchy (Terres, Travaglione & Firns 2001; Jurkiewicz 2000; O'Bannon 2001). If this description of Gen X is accurate, organisations are unlikely to find the levels of OC that they desire from this generational cohort. However, while there is general consensus regarding these stereotypes (Augustine 2001; Kupperschmidt 2000; O'Bannon 2001; Pekala 2001), there is limited empirical research supporting them. In addition, several empirical studies have produced results which run counter to the hypotheses typically put forward by researchers, while some commentators claim that generational identity is a myth (Giancola 2006). Consequently, there is a need for more studies that examine relationships between OC and generational cohorts, using different measures and different samples, in order to determine whether or not there are genuine differences in OC across the two generations.

This paper reports the results of a study which examines the relationship between generational identity and levels of OC in employees, using a sample drawn from a large Australian public sector organisation.

**EMPIRICAL LITERATURE**

OC is more than a passive attachment to an organisation. Committed employees feel the need to go beyond normal job requirements to make a significant personal contribution to the organisation (Mowday, Steers & Porter 1979). OC is more stable and more global than employee satisfaction, and consequently more closely related to the achievement of long-term organisational goals. OC is an important employee quality for organisations. Several studies have found relationships between high-commitment human resource policies and positive organisational outcomes such as productivity, quality and profitability (Huselid 1995; MacDuffie 1995). Consequently, understanding generational differences in OC may provide a starting point for the development of relevant and effective human resource policies for the future.

A synthesis of the literature suggests that there are significant differences in attitudes and values between the Boomer and Gen X cohorts (Mir, Mir & Mosca 2002; Smith & Hoy 1992).
Boomers are usually portrayed as being idealistic, optimistic and inner-directed. They desire meaningful work, seeing work as a challenge and an opportunity for personal advancement (Kupperschmidt 2000; Loomis 2000; Ludwig 2007). Gen X is usually described as adaptable, team oriented, technologically competent and entrepreneurial, but at the same time cynical, sullen, contemptuous, naïve and arrogant (Ferres, Travaglione & Firns 2001; Jurkiewicz 2000; O'Bannon 2001; Tulgan 1995; Zemke, Claire & Filipczak 2000).

Despite the broad agreement on generational differences, the empirical evidence is contradictory. Some studies have found many differences, some few differences, and some no differences. For example, when Jurkiewicz (2000) obtained rankings of fifteen workplace motivators, including salary, security, autonomy, prestige and opportunity to work as part of a team, she found significant differences in only three factors. Boomers ranked ‘chance to learn new things’ and ‘freedom from pressures to conform’ more highly, and Gen X employees ranked ‘freedom from supervision’ higher. Similarly, Ferres, Travaglione and Firns (2001) found no significant differences in levels of affective commitment between Gen X and older employees, but did detect lower levels of continuance commitment, higher turnover intentions, and lower scores for perceptions of procedural justice in Gen X employees. Research conducted by Catalyst (2005) found that 85% of Gen X employees really cared about the fate of their employees, and Davis, Pawlowski and Houston (2006) found that levels of commitment in IT professionals were more homogeneous than different across the two Gen-X and baby boomers.

Wallace (2006) identified a possible explanation for the discrepancies in findings, suggesting that while there is no difference between levels of commitment between generations, there is a difference in the factors which lead to commitment. That study, conducted with a large sample of Canadian lawyers, suggested that extrinsic rewards will produce commitment in baby boomers, while intrinsic rewards will lead to commitment in Gen-X employees.

Gen X has grown up and reached adulthood during a period of extraordinary technological, economic, and social change. The extensive restructuring and downsizing that occurred in the 1990’s as Gen X was entering the workforce has forced them to take advantage of new opportunities as they come along, either inside or outside the organisation that currently employs them. Gen X employees are eager to upgrade their skills through training on the job and externally in order to keep themselves “employable” (Tulgan 1995). This sense of maintaining their marketability, in the face of uncertain job futures, may explain why they are generally less inclined to be committed to organisations. On average, Gen X employees will hold six different jobs during their careers, significantly more than their parents typically did.

One of the difficulties in increasing OC in Gen X employees may be the higher levels of cynicism considered typical of this cohort (O'Donovan 1997). They believe that their parents, the Boomers, were too quick to trade their idealism for boardrooms and BMWs, with the children safely out of the way at day care. Consequently managers not only need to understand how to motivate Gen X employees, but also may have to help them learn to make organisationally responsible decisions. Clarke (1999) suggests that cynicism is an unavoidable
outcome of engaging in contemporary organisational activity, a state of mind necessary for contemporary survival. Again, there is limited empirical evidence regarding generational differences in levels of cynicism. In a recent study, Perryer, Jordan and Mauger (2002) found no main effect for generation in relation to pessimism or dispositional attribution, two elements which together comprise the construct of cynicism about organisational change. However, they found that the interaction of generation and gender was a useful predictor of dispositional attribution.

While there is some doubt about the validity of many assumptions about generational identity put forward in the literature, it seems likely that Gen X employees will display higher levels of pessimism and cynicism than Boomers. They are consequently likely to display lower levels of OC than the Baby Boomer generation.

**RESEARCH AIMS AND HYPOTHESES**

Few studies examining generational differences and organizational commitment have been conducted outside North America, and almost all of those studies have been based on samples drawn from the private sector or education. This study builds upon the literature in this area by providing an understanding of generational differences in relation to OC in an Australian public sector sample, and goes on to provide suggestions for practitioners in managing those differences. Based on the review of the literature, the following hypothesis is put forward.

H1: After controlling for length of service, education level, gender, and work pressure, generation X employees will report significantly lower levels of OC than Baby Boomers.

**METHOD**

**Sample**

The sample consisted of customer service employees in the Western Australian branch of a large Australian Federal Government organisation. From a population of 563 employees, 216 completed questionnaires were returned. This represented a response rate of approximately 38 per cent. The demographics of the sample compared well to the population.

**Instrument**

A questionnaire was made available, via the world-wide-web, to all customer service employees. The data was collected as part of a larger survey with the areas of interest for the present study being the OC scale and demographic variables.
Organisational Commitment (OC)

Organisational Commitment was measured using the 15-item scale developed by Mowday, Steers and Porter (1979). Responses were obtained on a seven point Likert-type scale, from 1 (strongly disagree) to 7 (strongly agree). A typical item is “I could just as well be working for a different organization as long as the type of work was similar”. While there are alternative measures (Barge 1988), this scale is the most frequently used instrument for the measurement of OC (Varona 1996), and has been used in numerous recent studies (Downey & King 1998; Good, Page & Young 1996; Kuvaas 2003; Leiter & Harvie 1997; Michaels & Dixon 1994; Subramaniam, McManus & Lokman 2002; Varona 1996). Scale reliabilities in these studies have invariably been good. For example Subramaniam, McManus and Lokman (2002) reported $\alpha$s ranging from .82 to .93 for the 15-item scale, while (Varona 1996) reported an $\alpha$ of .76. In this study, the alpha reliability for this scale was 0.91.

Work Pressure

Work Pressure was measured using the 3-item scale developed by Martin and Wall (1989). Responses were obtained on a seven point Likert-type scale, from 1 (to no extent) to 7 (very great extent). A typical item is “I am under constant pressure to do work on time”. The alpha reliability for the combined scale was 0.79.

Demographic Variables

Information was collected about the respondents’ age, gender, highest education level attained, and length of government service.

RESULTS

Analyses included descriptive statistics, correlations, and regression analysis. Assumptions pertaining to normality, homogeneity of variance and multicollinearity were tested prior to analysis and whilst some evidence of skewness and kurtosis were evinced, the deviations from normality were within acceptable limits. Descriptive statistics were then calculated. Table 1 shows the means and standard deviations for OC for males and females and generation X compared to baby boomers.
TABLE 1: MEANS AND STANDARD DEVIATIONS FOR OC WITH GENDER AND GENERATION

<table>
<thead>
<tr>
<th>Construct</th>
<th>Gender</th>
<th>Generation</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Generation X</td>
<td>Baby Boomer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>Mean</td>
<td>SD</td>
<td>n</td>
<td>Mean</td>
<td>SD</td>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>OC</td>
<td>68</td>
<td>4.09</td>
<td>1.37</td>
<td>143</td>
<td>4.36</td>
<td>1.28</td>
<td>73</td>
<td>3.95</td>
</tr>
</tbody>
</table>

Initially an exploratory factor analysis was performed using principal axis extraction with direct oblimin rotation. All items except three loaded cleanly on one factor. The removal of these items produced one clear factor which was then used for further analysis.

Correlations were calculated to gain an understanding of the relationship between the dependent, independent and control variables. From the correlations in Table 2 it can be seen that there is a moderate, negative correlation between OC and Work Pressure as expected. There is a moderate, positive relationship between Generation with both Gender and Service.

TABLE 2: CORRELATIONS BETWEEN INDEPENDENT VARIABLES AND OC

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. OC</td>
<td>3.90</td>
<td>0.90</td>
<td>(0.91)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Work Pressure</td>
<td>4.75</td>
<td>1.50</td>
<td>-0.32**</td>
<td>(0.79)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Gender</td>
<td>n/a</td>
<td>n/a</td>
<td>0.08</td>
<td>-0.07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Service</td>
<td>n/a</td>
<td>n/a</td>
<td>0.03</td>
<td>-0.05</td>
<td>-0.21**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Education</td>
<td>n/a</td>
<td>n/a</td>
<td>-0.02</td>
<td>-0.01</td>
<td>0.05</td>
<td>-0.07</td>
<td></td>
</tr>
<tr>
<td>6. Generation</td>
<td>n/a</td>
<td>n/a</td>
<td>0.15*</td>
<td>-0.03</td>
<td>-0.25**</td>
<td>0.54**</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Note: Alpha reliabilities are shown in parentheses.

A hierarchical regression analysis was then performed on the data (see table 3). The control variables were entered on the first step, work pressure in the second step, and generation in the third step. Undertaking the analysis in this way tested for the impact of generation on OC after partialling out the variance accounted for by gender, length of service, education and work pressure. Results from the hierarchical regression analysis show that (at a 1% significance level), after controlling for the length of service, education level, and gender, work pressure was a significant predictor of OC. While this relationship was not hypothesised, the finding is of particular interest. After removing the effects of length of service, education level, gender, and
work pressure, generation was found to be a significant predictor of OC, providing support for hypothesis 1.

**TABLE 3: THE EFFECTS OF GENERATION ON OC**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0.17</td>
<td>0.10</td>
<td>0.15</td>
</tr>
<tr>
<td>Service</td>
<td>0.08</td>
<td>0.05</td>
<td>-0.15</td>
</tr>
<tr>
<td>Education</td>
<td>-0.03</td>
<td>-0.02</td>
<td>-0.07</td>
</tr>
<tr>
<td>Work Pressure</td>
<td></td>
<td>-0.22**</td>
<td>-0.22**</td>
</tr>
<tr>
<td>Generation</td>
<td></td>
<td></td>
<td>0.39**</td>
</tr>
<tr>
<td>( R )</td>
<td>0.90</td>
<td>0.37</td>
<td>0.41</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.01</td>
<td>0.14</td>
<td>0.17</td>
</tr>
<tr>
<td>( \Delta R^2 )</td>
<td></td>
<td>0.13</td>
<td>0.03</td>
</tr>
<tr>
<td>( \Delta F )</td>
<td>0.561</td>
<td>30.67**</td>
<td>6.99**</td>
</tr>
</tbody>
</table>

Note: Bolded items are beta values. * p<0.05, ** p<0.01

**DISCUSSION**

The present study attempted to build on previous research in understanding the influence of generation differences in relation to OC. Overall, it was found that generation differences influence OC above and beyond the influence of gender, length of service, education levels and work pressure. Specifically this means that Gen X employees are significantly less committed than Boomers, providing support for the hypothesis put forward.

Although the addition of the generation variable in the model only accounted for a small proportion of the variance (an additional 3%), this does not rule out the relevance of this finding, which is typical for field investigations. This variable made a significant contribution to the model as demonstrated by the change in variance explained and the significant change reported with the F statistic. Additionally, the amount of variance explained by empirical studies is often small due to their use of limited operationalisation of the construct of concern. For example, in the present study, OC was the only consideration for the construct of commitment and lacked the inclusion of other types of employee commitment (i.e. commitment to your team, commitment to your profession, etc). Additionally other attitudinal measures would be useful in further explaining the variance unaccounted for in the present model. It is important however to make note that the present research did not attempt to account for a high proportion of the variance of the dependent variable OC, but rather to better understand the impact of generational differences on OC.
This finding offers a possible explanation for some of the inconsistencies between earlier studies. It may be that generational differences do exist, but while they are statistically significant they have limited practical significance because of the small extent of the differences.

CONCLUSIONS AND IMPLICATIONS

The study has important implications for researchers. Firstly, while work pressure was included in the analysis primarily as a control variable, the large amount of variance explained warrants further investigation. Secondly, while the body of “generational” literature has grown in recent years, it is still predominantly a practitioner literature. There is a need for more studies which examine specific variables across generational cohorts, to establish with more rigour whether or not differences really exist, and if they do exist, the quantum of those differences. Knowledge would also be enhanced by studies which replicate earlier studies in new samples, particularly using respondents from different organisational sectors and in different geographic locations.

As the aging Boomer generation becomes less influential in organisational contexts, human resource managers would be wise to consider the values and attitudes of Gen X employees. Managers must ensure that they understand how to motivate and respond to the disparate needs of the dominant generational cohort in the workplace, while taking into account the needs of employees from other generations. This is a critical factor in organisations’ achieving the maximum performance from their workforce.

There are of course many variables other than generational identity that impact upon organisational performance. This study does not discount the need for managers to address other workplace factors, but instead attempts to provide empirical support for assumptions about generational diversity widely canvassed in the literature. Additionally, managers should be cautious about ascribing different value sets or potential motivators to employees based simply on their generational cohort. Findings such as that in this study offer insights to managers, but do not provide a template for their people management approach. Ultimately every employee is different, and needs to be treated as an individual if employee commitment and employee output is to be maximised.
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TEACHER-AS-RESEARCHER AND THE IMPORTANCE TOWARDS MALAYSIA’S EDUCATION PROSPECT

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ABSTRACT

The export of Malaysia higher education sector can enhance the business environment locally of which we had seen a RM 1.5 billion contribution to the government in 2007. World-class higher education requires a wide array of quality areas among others – research activities. The main concern of this study is to review the readiness and willingness of the educators to participate in research activities from the past research and studies. Thus, the study will look at the importance of research in academic colleges and the contribution towards the Malaysia's economy today and in future.

INTRODUCTION

In year 2007, higher education sector had contributed RM1.5 billion to the government. This income is generated from the foreign students who are currently enrolled at local higher learning institutions. Education has become one of the sectors which can enhance the business environment in Malaysia. Consequently, government is promoting the export of Malaysian education sector to overseas. Public and private institutes of higher learning are required to offer world-class quality higher education along with the mission; becoming the centre of excellent education in Asian region.

In year 1991, our former Prime Minister, Tun Dr. Mahathir, had inspired and presented a development philosophy known as “Vision 2020”. Vision 2020 stressed on the country's achievement in political stability, economical development, industrialization, growth in business and technology, reducing poverty and enhancing the integrity between nations’ various ethnics. Tun Dr. Mahathir also highlighted on the role of education in producing ample human resources to realize our Vision 2020 (Mahathir, 1991). Nowadays, the wave of globalization in education has spread and most of the education institutions are competing with each other and actively promoting international education. A lot of the private higher educational institutions are potentially increasing their efforts to attract students from our neighbour and overseas countries such as Indonesia, Myanmar, Cambodia, Philippines, China, with the African and Arab countries (Sato, 2005). Hence, institutions of higher education are actively participating in international education industry to provide local universities degree programmes or carrying
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twinning programmes with higher education institutions from western countries, for example U.K., U.S.A. and Australia. They are providing quality courses and upgrading the standard of education internationally. Besides that, with the moderate cost of living, diversity of languages and religions as advantages of studying in Malaysia, it becomes one of the major key to open Malaysian economic door to the international world (Sato, 2005).

Under the forces of globalization, there are several new challenges in the human capital market. Generic skills and professionals possessed by the graduates are needed in order for them to compete in the market of factors of production. Therefore, the generic skills such as innovative, creativity, problem solving, information and communications technology (ICT), numeracy, and analytical thinking are essential in the process of learning especially in higher educational learning (Wong and Hamali, 2006). All the institutions emphasized that research activities tend to boost up the quality of the institutions resulting in higher student enrolments. Although there are abundant advantages of doing research, can research really polish ones teaching skills and lead to the increase in the number of students enrolment? On the other hand, are teachers ready to share out their personal or departmental research for peer review?

LITERATURE REVIEW

The Nature of Educational Research

In the past 30 years, there were several scholars trying to link research as part of the duty of teachers. Stenhouse (1975) had advised that teachers must continuous enhance their educational skills and experience, and by conducting research, teacher can change the world of classroom. Carpenter had mentioned that successful researchers are also excellent teachers. Any scholars who are distinct in the research can succeed in teaching too (Carpenter, 2003). Altbach and Lewis (1995) conducted the Carnegie Foundation’s international survey; more than three quarters of faculty in all 14 countries believe that successful research is important for the faculty evaluation. Besides that, the total number of publication becomes a performance indicator in higher education to determine the quality of teacher-researcher.

Although the word ‘research’ is refer to a study of a subject which is aim to discover new facts or information, it might not necessary be a long winded process. Many teachers are so confused in the nature of research, that they think conducting a research needs either qualitative or quantitative data analyses of which the sample size must be large enough to produce significant results. In fact, research can be less formal than that (Ross-Fisher, 2008). Research can be done through everyday teaching and learning activities. When there is an argument of concept or thoughts in the classroom between teacher and students, hereby arises problem statements and ideas for the teacher. This can help teachers to identify and conceptualize problems through the research. This kind of research is called action research. Action research can be done in personal level and share among colleagues in the same department as well as in a private group of teachers. The finding and outcome of the research can be published in the education journals aimed to share with other researchers and teachers too. Besides that, research which is conducted as classroom activities with the participation of students will lead students to an
interesting learning process. Consequently, students can be trained to think critically and able to solve problems in an efficient manner. The main purpose of a research is to improve teaching and learning (Slavin, 2006).

Katz and Coleman had conducted a survey to derive the importance of research at academic colleges in Israel (Katz and Coleman, 2001). From the survey, there are five responses on the contribution of research to the professional development which includes the openness to innovations, professional growth, improving self-confidence, improvement of professional status and professional contacts. The involvement in research becomes a motivator to teacher in their career prospects. When a teacher is in a supportive environment of doing research, this can enforce the teacher to involve in continuous learning activities. Other than that, higher educational institutions as a place playing core roles in teaching and learning, research and development can make significant contribution to the economical sustainability and community responsibility. Most universities carry out research (Wallis et. al., 2005).

Effects of Research on Teaching and Learning

In view of the teacher development system, teachers’ knowledge and skills in preparation, accomplishment in teaching and supervision being served as the major components in the effort to improve student performance. A recognize definition of high quality teaching has to be defined to promote continuous advancement in teaching and learning sphere. By the way, all teachers must understand the importance to keep a watching eye with the developments of their field and keeping up-to-date findings in the subject they teach (Baldwin, 2005). Thus, carrying research can be a good approach in updating knowledge of fundamentals of the teaching subject.

Middlewood’s research in 1999 shows 94% of the respondents feel that they had learned new skills by doing research and the advancement is the value added in their professional (Middlewood, 1999). Besides that, teachers can identify the concept of a theory using evidence and argument found in their research. Logical argument, critical thinking and problem solving skills will be developed from the process of conducting research. Consequently, pedagogical skills will be developed too. This has improved the teachers’ preparation in teaching and enlightens students in their learning environment. Hence, the research held can enhance the teacher quality and teacher can explore their knowledge of the subject in depth. This may become the key of how students evaluate their teacher. So, in academic viewpoint, research always improves the teaching and learning process. High qualified teachers will be able to create effective teaching plan and assessment to influence students learning process. Zeichner had defined four determinants for the research-based teacher education. One of the determinants has outlined that all teaching is based on research. Moreover, he has stated that students can learn more research skills during their studies and it is helpful in their Master Thesis level (Zeichner, 1983). Research done in degree level is a bit different compare to the master degree. With a basic knowledge in analysis and problem solving skills, students can discover an inspiration or a gap in their principles. This will lead students to participate in Master Thesis by designing proposal and important research question.
There is an opposite opinion on the discussion of the link between research and teaching. A study carried by Brew and Boud (1995) had stated the assumption that research productivity enhances teaching effectiveness and not the other way round. Hattie and Marsh (1996) provide a survey which concludes that there is no connection between teaching and research. Ramsden and Moses argued that research performance cannot work in parallel with teaching performance, in another word; teaching and research can affect teaching quality separately (Ramsden & Moses, 1992). Moreover, from the review of literature, quite a numbers of the scholar suggested that only research may enhance teaching, and there is no possible relation in the other direction. Whilst there is a negative relationship between teaching and research, another survey been done by Dr Sylvia Hogarth in year 2004 for the Forum for the Enhancement of Learning and Teaching to determine how teaching informed by research. He tried to collect as more examples from teachers and researches towards the inter-relationship of their teaching and research. Responds from the survey been concluded and the benefits towards students can be seen as below:

i) Motivate students’ interest in the subject
ii) Improve understanding
iii) Encourage critical reflection / analysis
iv) Provide up-to-date information
v) Students can be part of the research and demonstrate the research approaches to the students

Hogarth (2004) had drawn a conclusion from his survey; it is common practice for teaching staff across the university to include aspects of their teaching in their research.

DISCUSSION AND CONCLUSIONS

Marshall (2003) had pointed out that Harvard and seven other Greater Boston research universities had successfully infuse more than $7 billion into the regional economy each year. Other than providing direct financial impact, they are producing human capital and new technologies that evoke economic growth. Take the Greater Boston research universities as example, the universities’ mission is to develop new knowledge and make great contributions to the regions economic.

In Malaysia, the overall numbers of international students in Malaysian international school and higher education institutions has increase 30% between 2006 and 2008 to 65,000. According to the former Minister of Education, Tan Sri Musa Mohamad, Malaysian government is set on target to achieve 50,000 international students in year 2010. Currently, there are about 28,000 international students acquiring higher education in Malaysia (Sato, 2005). Dr. Mohamed Nasser Mohamed Noor, Director of the Higher Education Ministry Marketing and International Education Division said that the increased number of international students is attributing to the effort of promoting Malaysian Education into international market. The “Malaysian Education”
brand emphasizes on several attributes, therefore quality of education is one of the attributes (Tan, 2008).

In the 2008 Budget Speech by YAB Dato’ Seri Abdullah Badawi, Prime Minister and Minister of Finance had announced that government is going to provide a sum of RM12 billion for the higher education projects and programmes. Government would like to utilize the sum of money in enhancing research, development and commercialization activities in our four Research Universities; University of Malaya (UM), Universiti Putra Malaysia (UPM), Universiti Sains Malaysia (USM) and Universiti Kebangsaan Malaysia (UKM) (Abdullah Ahmad Badawi, 2007). Besides that, government will proceed to the project of re-branding of our community colleges.

From the literature review, there were several advantages of the teacher as researcher been figured out which can be the selling points to achieve Malaysia education prospects and encourage teacher to actively participate in research activities. Teacher researchers learn new skills through conducting research. Other than that, research help to provide data which can describe or monitor important economical and educational concerns. So, any changes in demographic, academic achievement and dropout rates can also be found from the research. In view of improving student learning outcome and encourage more international students to study in Malaysia, the teachers who are involved in the research can be more well prepared and raise the instinct of students in search for new knowledge. Therefore, indirectly there will be an increment in the total number of students enrol in the higher educational institutions. The attachment in research can build the teachers as well as students self-confidence and hence make advancement in the teaching-learning development. Expansion in the professional careers, professional contacts and status is can be achieved when teachers take part in research activities and bring up recognition in the international conference, publication, seminar, workshops and so on and so forth.

Looking back, there are ample advantages and methods that can be implemented to attract international students to study in Malaysian higher education institutions. The aim of government to promote and accomplish branding on Malaysian education is no longer a far-fetched vision but a small step away towards tomorrow reality. Exporting of Malaysian education will be one of the fundamentals in provoking a strong economic foundation if and only if Malaysian teacher is also a researcher!
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PERCEIVED IMPORTANCE OF INFORMATION SYSTEMS TEACHING:
THE BUSINESS STUDENTS’ PERSPECTIVE

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ABSTRACT

Today, it is common to find information systems (IS) subjects being taught at undergraduate and graduate levels in business schools. However, we observe business students generally think that IS subjects are not relevant to their studies, hence are not interested in learning more about development, implementation and management of information systems. This phenomenon prompts us to ask some questions: Are we delivering the right IS contents to the business students? If we are not, then, what IS topics are considered important or of high perceived value among the business students? What changes should be made to the existing IS syllabuses and curriculums? The purpose of this research is to examine, from the perspective of business students, IS topics that are considered important or of high perceived value. The findings of the research provide a strong groundwork in designing syllabus of IS subjects offered by business schools.
INTRODUCTION

Today, it is common to find information systems (IS) subjects being taught at undergraduate, postgraduate and professional levels. A quick review of course curriculums has at least informed about the current standing of IS subjects in business schools and professional bodies in Malaysia, e.g. Chartered Institute of Management Accountants (CIMA)’s Paper P4, Organisational Management and Information Systems, includes topics such as systems theory, IT infrastructure, systems development, and so on. Association of Chartered Certified Accountants (ACCA)’s Paper 2, Information for Management Control, discusses how computer systems help provide information for managerial decision-making purposes. The International Education Guideline 11 - Information Technology in the Accounting Curriculum, released by the International Federation of Accountants (IFAC) in 1996, portrays accountants as users, managers, designers and evaluators of information systems and suggests that IT education is a critical component of holistic accounting studies.

Having taught several IS subjects such as Information Systems, Managing Information Systems and Electronic Commerce to undergraduate business students; we observe that business students generally think that IS subjects are not relevant to their studies, and that they have no interest in learning more about development, implementation and management of information systems. This phenomenon prompts us to ask some questions: What has gone wrong? Are we delivering right IS contents to the business students? If we are not, then, what IS topics are considered important or of high perceived value among the business students? What changes should be made to the existing IS syllabuses?

This research has two objectives: (1) to first examine IS topics, from the perspective of business students, that are considered important and (2) to compare if there are differences in perceived importance of IS topics between the two groups of business students: accounting and business administration. The findings of the research will provide a strong groundwork in designing syllabuses of IS subjects offered by business schools.

In the next section, background and rational of the study is discussed. Study design and study findings are described in the next two sections that follow. The last two sections present the conclusion and future research directions respectively.

BACKGROUND AND RATIONALE

Since early seventies, IS professional associations, e.g. ACM, AIS, AITP (formerly DPMA) have been working on curriculum development for the IS discipline (Couger et al. 1995, 1997; Gorgone et al., 2002; Kung et al., 2006; Nunamaker et al., 1982). The IS 2002 Model Curriculum and Guidelines for Undergraduate Degree Programs in Information Systems (IS ’02) is an output of joint effort of ACM, AIS and AITP. Individual researchers have also contributed to the development of IS curriculum, e.g. Gill and Hu (1998/1999) surveyed 442 IS faculties to study the right contents for developing graduate IS programs. Burn and Ma (1996)
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shared the experience in the development of curriculum for a post-graduate strategic IS management program.

Organizations have long recognized IS as an enabler in creating and sustaining competitive advantage. Strategic IS planning and management is regarded as one of the key competences of business managers; they learn that competence in business schools (Lee, 2001). IS subjects are common in business curriculums, covering a broad range of topics from IS concepts, systems analysis to business continuity, and so on. It is also common to find software applications for word processing, spreadsheets and presentations being taught (Polansky, 2001). Some business schools have integrated commercial software applications into their curriculums, e.g. the popularity of enterprise resource planning (ERP) systems has driven business school in the US to teach ERP (Becerra-Fernandez et al., 2000; Johnson et al., 2004; Seethamraju, 2007).

Among the large number of IS topics, some researchers have tried to find out the right mix of topics to be taught. Ehie (2002) interviewed MIS practitioners of 14 companies to propose an undergraduate MIS curriculum. Mcleod (1996) conducted a mail survey, involving some 2000 college instructors who taught the subject Systems Analysis and Design (SAD) in two-year and four-year programmes, to search for details such as objectives, topics and tools to be covered in the subject. A study was conducted by Kohli and Gupta (2002) in an attempt to understand the perception of undergraduate students towards an SAD subject.

These past studies either proposed curriculums for IS courses, examined the issue from the perspective of IS practitioners or had a rather narrow focus on a specific IS subject, e.g. SAD. IS teaching involves several stakeholders, most importantly the students and employers. We must understand the needs of individual groups before designing the syllabuses (Hemingway and Grouh, 2000). This study attempts to identify the right mix of IS topics to be incorporated into business curriculum, with a focus on the business students, and expands the scope to include most IS topics rather than focusing on a particular IS subject.

Before we can identify the right IS topics for business students, there is a need to first understand what these IS topics are. To define the scope of IS, several frameworks have been proposed. Khazanchi and Munkvold (2000), having examined both primary and secondary reference disciplines, attempted to identify topics for inclusion in the IS field. Nunamaker et al. (1982) suggested that a curriculum design should consider three aspects: people, skills and tools. The joint collaboration of several IS professional bodies proposed the IS body of Knowledge (Couger et al., 1995; 1997; Gorgone et al., 2002). Having reviewed extant literature, subject syllabuses, texts, and industrial surveys, Bacon and Fitzgerald (2001) categorized five main areas essential to cover a wide spectrum of IS topics (see Figure 1). Although considered a comprehensive framework, not all topics appeal to the business students. As pointed out by Bacon and Fitzgerald (2001), the framework could be customized to accommodate different groups. A topic might be perceived utmost importance by some but not-at-all importance by the others, e.g. about the topic systems methodology, perception of IS students would be different from that of business students.
This research adopts the proposed framework by Bacon and Fitzgerald (2001) to examine the five main areas of IS topics, i.e. (1) IS development, acquisition and support, (2) people and organization, (3) information for knowledge work, customer satisfaction and business performance, (4) information and communications Technology, and (5) operations and network management.

**STUDY DESIGN**

**Pretest**

Based on the model of Bacon and Fitzgerald (2001), we drafted a preliminary questionnaire. To aid understanding, a short explanation was provided for each topic. Three senior IS lecturers helped revise the questions for conciseness and coherence. The preliminary questionnaire had two parts. Part A consisted of a total of 44 items sorted by the five main IS areas. All items were measured using a 6-point Likert scale, with 1 being “not important at all”
and 6 “being extremely important”. Part B had 5 demographic questions. The revised preliminary questionnaire was then subjected to a pretest.

The questionnaire was pre-tested with a focus group of 10 business students. The pretest was necessary to ensure that the students had no difficulty in understanding the questions. As a result of pretest, some short explanations were re-worded to suit the level of understanding of business students. After the revision, the questionnaire was reviewed again by the same group of students. The students reported that the questionnaire was satisfactory.

Sample and Profile of Respondents

The target respondents were all 979 Year 3 Semester 2 students who were studying Accounting or Business Administration courses at a private higher education institute. The reason why only Year 3 Semester 2 students were surveyed was because at this stage of their studies these students would have studied the subjects Information Systems (i.e. fundamentals of IS), Managing Information Systems (i.e. systems analysis and design) and E-Commerce as prescribed in the structure of Accounting or Business Administration courses. We supposed that these students would be more familiar with the terms and hence were able to make better judgment in answering the questions. To ease distribution of questionnaires, the questionnaire was available on the Internet for four weeks. An email was sent to all 979 students, inviting them to respond to the online questionnaire. Two weeks after the initial email invitation, 74 valid responses were received. An email reminder was sent two weeks after the initial email invitation. An additional 43 valid responses were received since. Thus, a total of 117 responses were received for a response rate of about 12%. To check for non-response bias, the 74 responses received within the first two weeks were categorized as early respondents and the 42 responses received after the email reminder as late respondents. Statistical analyses showed no significant differences between the groups.

Demographics of the respondents are shown in Table 1. In total, about 51% of the respondents perceived the IS subjects taught were relevant to their field of studies, while about 41% perceived that as somewhat relevant. About 39% expressed high interest level in the IS subjects taught, while about 38% were somewhat interested.
TABLE 1: DEMOGRAPHICS OF RESPONDENTS

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<td></td>
<td>Frequency</td>
<td>%</td>
<td>Frequency</td>
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<td>Perceived relevance of IS subjects</td>
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<tr>
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<tr>
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</tr>
<tr>
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<td>117</td>
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<td>Interest level of IS subjects</td>
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<td>Highy interested</td>
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<tr>
<td>Interested</td>
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<td>Somewhat interested</td>
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<td>23.08</td>
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<tr>
<td>Total</td>
<td>52</td>
<td>65</td>
<td>117</td>
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STUDY FINDINGS

Exploratory Factor Analysis

Inter-item correlations were first examined to delete an item with a correlation < 0.30 between it and any of the other items. None of items were deleted. A principle components analysis was then performed on all 44 items of the five main IS areas to reveal the underlying factors. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett’s test of sphericity were checked for appropriateness of factor analysis (Hair et al. 2006). Both showed satisfactory results (KMO = 0.826, p <0.05). Assuming that there were no correlations among the factors, the rotation method Varimax was used. An item was considered for deletion if it (1) loaded < 0.5 on any one of the factors or cross-loaded > 0.5 on two or more factors. After five iterations and a number of items deleted, the final rotated component matrix presented nine clear interpretable factors. To check for internal reliability consistency, Cronbach’s alpha was computed for each factor extracted. All showed satisfactory results, except factor 5 ($\alpha < 0.6$). A close examination of the item-total statistics of factor 5 revealed one of the items was causing the low alpha. The item was then deleted to help improve the alpha ($\alpha > 0.6$) of factor 5. As a result of the item deletion of factor 5, a principle components analysis was performed again. Table 2 showed the final rotated component matrix, factor loadings and Cronbach’s alpha. Although alphas of Factors 5, 6 and 8 were between 0.6 and 0.7, they still satisfied the minimum 0.6 cutoff value for an exploratory study, as suggested by Hair et al (2006).
### TABLE 2

**FACTOR LOADINGS**

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<td>0.785</td>
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</table>

<table>
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<tr>
<th></th>
<th>Eigenvalue</th>
<th>Cum. % of variance</th>
<th>Cronbach's alpha</th>
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<td>8.800</td>
<td>14.678</td>
<td>0.889</td>
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<tr>
<td>2</td>
<td>2.262</td>
<td>25.898</td>
<td>0.835</td>
</tr>
<tr>
<td>3</td>
<td>1.838</td>
<td>36.454</td>
<td>0.853</td>
</tr>
<tr>
<td>4</td>
<td>1.789</td>
<td>43.622</td>
<td>0.758</td>
</tr>
<tr>
<td>5</td>
<td>1.369</td>
<td>49.913</td>
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</tr>
<tr>
<td>6</td>
<td>1.267</td>
<td>55.991</td>
<td>0.650</td>
</tr>
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<td>7</td>
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<td>62.024</td>
<td>0.741</td>
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<tr>
<td>8</td>
<td>1.080</td>
<td>67.959</td>
<td>0.671</td>
</tr>
<tr>
<td>9</td>
<td>1.009</td>
<td>73.443</td>
<td>0.723</td>
</tr>
</tbody>
</table>

**Note:**
- Overall Kaiser-Meyer-Olkin (KMO) = 0.815
- Overall Bartlett’s test = 0.000
- Factor loadings < 0.5 are not shown
- Extraction method: Principle components analysis
- Rotation method: Varimax with Kaiser normalization

### Independent Samples T Test

We were interested to find out if there were any significant differences in each factor between the accounting and business administration students. An independent-samples t test was performed for this purpose. Table 3 shows that for factors 1, 2, 3, 4, 6, 7, 9, there were
significant differences between the accounting and business administration students on perceived importance of each factor. For factor 1, the mean importance score of accounting students (mean = 4.301, SD = 0.840) was significantly different from that of business administration students (mean = 4.721, SD = 0.768). For factor 2, the mean importance score of accounting students (mean = 4.542, SD = 0.796) was significantly different from that of business administration students (mean = 4.825, SD = 0.675). For factor 3, the mean importance score of accounting students (mean = 4.255, SD = 0.796) was significantly different from that of business administration students (mean = 4.631, SD = 0.745). For factor 4, the mean importance score of accounting students (mean = 4.962, SD = 0.747) was significantly different from that of business administration students (mean = 5.238, SD = 0.632). For factor 6, the mean importance score of accounting students (mean = 4.558, SD = 0.784) was significantly different from that of business administration students (mean = 4.769, SD = 0.593). For factor 7, the mean importance score of accounting students (mean = 4.971, SD = 0.717) was significantly different from that of business administration students (mean = 5.254, SD = 0.745). For factor 9, the mean importance score of accounting students (mean = 4.654, SD = 1.123) was significantly different from that of business administration students (mean = 5.077, SD = 0.607). As for factors 5 and 8, there were no significant differences between the accounting and business administration students.

A close examination of the mean importance score of all nine factors revealed that business administration students in general perceived IS topics to be more important, compared with the accounting students. This finding might not be surprising, given that accounting studies are highly specialized and focused, while business administration studies are more general and broad. Accounting students might prefer to have a concentration of accounting related topics. This finding contradicts the views of International Federation of Accountants (IFAC) that

TABLE 3: RESULTS OF INDEPENDENT SAMPLES T

<table>
<thead>
<tr>
<th>Factor</th>
<th>Major</th>
<th>Frequency</th>
<th>Mean</th>
<th>SD</th>
<th>t-statistics</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>Acc</td>
<td>52</td>
<td>4.301</td>
<td>0.840</td>
<td>-2.815</td>
<td>0.006 ***</td>
</tr>
<tr>
<td></td>
<td>BA</td>
<td>65</td>
<td>4.721</td>
<td>0.768</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td>Acc</td>
<td>52</td>
<td>4.542</td>
<td>0.796</td>
<td>-2.075</td>
<td>0.040 **</td>
</tr>
<tr>
<td></td>
<td>BA</td>
<td>65</td>
<td>4.825</td>
<td>0.675</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3</td>
<td>Acc</td>
<td>52</td>
<td>4.255</td>
<td>0.796</td>
<td>-2.631</td>
<td>0.010 **</td>
</tr>
<tr>
<td></td>
<td>BA</td>
<td>65</td>
<td>4.631</td>
<td>0.745</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F4</td>
<td>Acc</td>
<td>52</td>
<td>4.962</td>
<td>0.747</td>
<td>-2.173</td>
<td>0.032 **</td>
</tr>
<tr>
<td></td>
<td>BA</td>
<td>65</td>
<td>5.238</td>
<td>0.632</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F5</td>
<td>Acc</td>
<td>52</td>
<td>4.327</td>
<td>0.777</td>
<td>-1.151</td>
<td>0.252 ns</td>
</tr>
<tr>
<td></td>
<td>BA</td>
<td>65</td>
<td>4.482</td>
<td>0.680</td>
<td></td>
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<tr>
<td>F6</td>
<td>Acc</td>
<td>52</td>
<td>4.558</td>
<td>0.784</td>
<td>-1.661</td>
<td>0.099 *</td>
</tr>
<tr>
<td></td>
<td>BA</td>
<td>65</td>
<td>4.769</td>
<td>0.593</td>
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<tr>
<td>F7</td>
<td>Acc</td>
<td>52</td>
<td>4.971</td>
<td>0.717</td>
<td>-2.073</td>
<td>0.040 **</td>
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<tr>
<td></td>
<td>BA</td>
<td>65</td>
<td>5.254</td>
<td>0.745</td>
<td></td>
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<tr>
<td>F8</td>
<td>Acc</td>
<td>52</td>
<td>4.471</td>
<td>0.795</td>
<td>-0.899</td>
<td>0.371 ns</td>
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<tr>
<td></td>
<td>BA</td>
<td>65</td>
<td>4.600</td>
<td>0.751</td>
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</tr>
<tr>
<td>F9</td>
<td>Acc</td>
<td>52</td>
<td>4.654</td>
<td>1.123</td>
<td>-2.446</td>
<td>0.017 **</td>
</tr>
<tr>
<td></td>
<td>BA</td>
<td>65</td>
<td>5.077</td>
<td>0.607</td>
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</tbody>
</table>

Note:
* p < 0.1; ** p < 0.05; *** p < 0.01; ns: not significant
accountants are users, managers, designers and evaluators of information systems. This research showed that the accounting students might think otherwise.

CONCLUSIONS

With the identification of the nine factors, this research suggests that there are nine key IS topics that are perceived to be important by business students. In general, slightly more than half of the students surveyed reported that IS topics were relevant to their studies. About 40% of them showed interest in the IS topics. This research also found out that business administration students perceived IS topics to be more important, compared with the accounting students. In conclusion, the findings of this research assist in the design of syllabuses of IS subjects offered by business schools.

FUTURE RESEARCH DIRECTIONS

This research included only undergraduate students who were enrolled in the Accounting or Business Administration courses as units of analysis. While we listen to the business students about the IS topic that are perceived to be important, it is also equally critical, at the same time, for us to hear from their future employers. Industry-academia collaboration is essential in designing a balanced business curriculum, which helps to equip students with knowledge needed by the industry. A follow-up study, involving employers, is required to paint a complete picture on the perceived importance of IS topics - we then have to teach these topics in business schools (Kim et al, 2006; Trauth et al., 1993).

REFERENCES


AFBE 2008 Conference Papers

ANXIETY AND SPEAKING ENGLISH AS A SECOND LANGUAGE AMONG MALE AND FEMALE BUSINESS STUDENTS IN UNIVERSITI INDUSTRI SELANGOR.

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Nadhia Dalila Bt Ab Wahid  
Industrial University of Selangor (Unisel)

ABSTRACT

This study explores the nature of anxiety and speaking English as a second language among male and female Bachelor Degree’s students of the Industrial University of Selangor (Unisel), Berjuntai Bestari, Selangor. This study attempts to identify potential sources of anxiety relevant to the students’ affective needs or concerns as a student in a higher education institution through the use of an in-depth qualitative questionnaire format. As the pre-administered questionnaire findings indicate, the differences of level of language anxiety exhibited by the participants seems to varying by gender. Using various studies by previous researchers of language anxiety as a theoretical guideline for data collection and analysis, this study also discusses some of the influences or impact of those anxiety-provoking factors on second language learning, along with some implications for further research on language anxiety.

INTRODUCTION

Anxiety is a negative way to present human feelings. When we are anxious, we feel nervous, worried, and fearful. We struggle, tremble, perspire, and our hearts beat quickly. In general, anxiety can be defined as a complex concept dependent upon not only on one’s feelings of self-efficacy but also appraisals concerning the potential and perceived threats inherent in certain situations (Tobias, 1986). In simple words, anxiety is usually associated with unpleasant feelings and is similar to fear (Lader, 1975).

Anxiety in the context of a second language, especially in communicating in English can have a debilitating effect and can influence students’ adaptation to the target environment and ultimately their educational goals. There is also agreement that anxiety is related to performance (Balachandran & Skully, 2004; Tobias & Everson, 1997), and that anxiety has
been shown to have a debilitating effect on learning and achievement (Gaudy & Spielberger, 1971; Tobias, 1980).

**Background of research**

In the past two decades, there has been a great deal of research in second language anxiety. Second language anxiety is defined as a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to using a second language for communication beyond the classroom. Most people will experience language anxiety. Even though anxiety might not be the most important reason for failure or success in learning, we cannot ignore its affection.

It cannot be denied that second language learning is important especially English. English is a widespread and important language in the world today. It is a major language of international business, diplomacy, and science and the professions. English is also an official language or the official language of many international and professional organizations. It is used not only for communication between native speakers and nonnative speakers of English but also between nonnative speakers.

Even though English does not have the greatest number of first-language speakers in the world, it is the most widely used language. The importance of learning, understanding and fluently speaking in English is necessary for careers especially when applying for a job with multinational companies (MNCs). This is because MNCs hire people from different countries and cultures and they use English as a medium of communication.

The need for effective oral communication skills is crucial for the business world as there are many MNCs located all around the globe. However, for the past few decades, business graduates have been criticized by employers for their lack of communication skills (Greathouse, 1986; Dearlove, 1996). Curtis, Winsor and Stephens (1989) in one survey of personnel managers has found that communication skills are more important to applicants in obtaining entry-level positions than are their technical skills, grade point averages or their degrees.

Among the communication skills deemed to be a core managerial competency is the ability to make effective presentations (Fandt, 1994; Whetten & Cameron, 1998; de Janasz et al., 2002).

Thus, because of the importance of English in the world today, especially for business graduates, this study analyzes the anxiety level of university students in Malaysia. However, due to the time constraints, this study focuses only on students of the Universiti Industri Selangor (UNISEL), Berjuntai Bestari Campus so scope of the study is narrowed down to Bachelor Degree students of the Faculty of Industrial Management (FIM).
The implications of the study are discussed and a list of recommendations is suggested to assist students deal with their anxiety level. This study assumes that the language anxiety is debilitating and investigates the possible causes of anxiety using qualitative methods.

**Objectives**

This study is developed in order to fulfill the researchers’ objectives, which are:

1.3.1. To examine whether gender differences play a crucial role in determining the level of anxiety among male and female students.

1.3.2. To identify causes of anxiety while speaking English in public.

**Research Questions**

This study is also made in order to answer the research questions:

1.4.1 Do gender differences have an impact towards the level of anxiety of students in UNISEL?

1.4.2 What are the possible causes of anxiety and of speaking English in public?

**Significance of the Study**

This research is significance to the lecturers in term of giving them insights of the main causes of anxiety faced by students. This study provides the lecturers with a starting point in understanding the causes of language anxiety and how they can help students overcome their anxiety levels.

This finding is not only applicable for students and lecturers but also will be helpful for outsiders who are facing the same problem of second language anxiety.

**Limitations of the Study**

Due to time constraints, the scope of the study was limited to all the Business Degree students of the Faculty of Industrial Management, Universiti Industri Selangor (UNISEL), Berjuntai Bestari Campus, Selangor and did not represent all business students in other universities. Thus, the sample is not relevant for other higher institutions because the level of anxiety may be different and the findings may also differ.

Most of the samples are non-native speakers of English and they were Malays, Indians, Chinese and others speaking in their own mother tongue. Most of these students use or study English only as their second language.

**Definition of Terms**

**Anxiety**
Anxiety is part of the human condition and it has broad definition. Anxiety in general can be defined as “the subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the autonomic nervous system” (Horwitz et al, 1986, p.125).

Speaking Anxiety

The fear of speaking in public is related with anxiety or communication apprehension. It’s a panicky feeling associated with physical sensations that are all too painfully familiar to those affected - increased heart and breathing rates, increased adrenaline, over-rapid reactions, and a tension in the shoulder and neck area.

Second Language Anxiety

Second language anxiety is usually related with English language usage in Malaysian’s context. It can be defined as distinct complex of self-perceptions, beliefs, feelings, and behaviors related to using a foreign or second language for communication beyond the language classroom.

Business Students of Industrial Management Faculty

These students are from Bachelor Degree courses in UNISEL, Berjuntai Bestari Campus, Selangor, that is; Bachelor of Industrial Management (BIM), Bachelor of Business Management (BBM), Bachelor of Accounting (BOA), Bachelor of Marketing (BOM) and Bachelor of Finance (BOF).

Sample

The sample is selected from five major courses of the Bachelors Degree’s students of the Faculty of Industrial Management, UNISEL, Berjuntai Bestari Campus, Selangor. Each course is represented by 30 samples in which 15 samples were male and another half were female students. The total samples are 150 students in which each gender has 75 representatives.

The samples were selected randomly in term of age and semester or year of studies because the main objectives of this research is to identify whether gender differences gives an impact towards anxiety levels.

LITERATURE REVIEW

Introduction

Anxiety is generally defined as " a state of apprehension, a vague fear" (Scovel, 1978, p. 134), and it seems difficult to describe in a simple and exhaustive manner, as it arises from many kinds of sources often associated with particular contexts or situations that individuals perceive threatening according to their unique frame of reference (Ehorman, 1996). Previous anxiety research suggests that there are roughly two types that can be experienced at different psychological levels (Spielberger, 1983; Levitt, 1980; Schwarzer, 1986).
At a global level, anxiety is viewed as a permanent trait, as some people are predisposed to be anxious. At a more local or situational level, anxiety can be experienced in response to a particular situation or act (Brown, 1994). However, the question of how these constructs relate to second language learning contexts is still under debate, although several interpretations of language anxiety are offered in terms of situational nature of anxiety (MacIntyre and Gardner, 1991a).

According to Tobias (1979, 1980, 1986), anxiety may work as a mental block to cognitive performance at all three cognitive stages: Input, Processing, and Output. In other words, anxiety arousal, which is typically associated with self-deprecating thoughts, fear of failure, or worry over performance procedures, may compete for cognitive resources that normal cognitive processing will demand.

**Anxiety in Speaking**

Public speaking anxiety is very common among both universities students and also the general population. It is a feeling of panic associated with physical sensations that are all too painfully familiar to those affected such as increased heart and breathing rates, increased adrenaline, over-rapid reactions, and a tension in the shoulder and neck are almost 20% of university students face the problem of public speaking anxiety (McCroskey, 1977). He also defined anxiety in broad-based as “an individual’s level of fear or anxiety associated with either real or anticipated communication with another person or persons”. The apprehension of speaking before a group of individuals remains a problem in the twenty-first century. According to Krannich (2004), the fear of delivering a speech or a presentation ranks as the number one fear among most people, including students as well as adults from many diverse backgrounds. Ayres, Hopt and Peterson (2000) referred communication anxiety related with the delivering of speech or the fear or anxiety associated with anticipating the delivery of a speech.

According to Phillips (1991), “it is clear that fear of speaking in public is different from anxiety about social contact”. True communication apprehension means that the sufferers see more value in keeping quiet in all circumstances (even in conversation) than they do from talking. Speech anxiety is a much targeted fear. “Our sense of public speaking anxiety is closer to what psychologists and psychiatrists refer to as a phobia than it is to free-floating anxiety” (Ayres & Hopf, 1993). It is an anxiety-based response not unlike the wide range of phobias that can be found in the areas of psychology and psychiatry.

**Causes of Anxiety**

There are various causes of anxiety. According to one article, there ten top causes for anxiety in public speaking. The first one is lack of preparation. The second cause of anxiety is the feeling that the students have either too many points to cover in the allotted time period. The third cause are too worrying about audience will be overly critical. Fear about do not entertaining or interesting people and they will walk out are the fourth causes of public speaking anxiety. Speakers who compare their perceptions to audience expectations and public speaking anxiety be revealed when audiences’ expectations are perceived greater than the speaker’s ability (Ayres, 1986). Perceived audience expectations influence speaker’s level of anxiety but audiences plays another role in public speaking anxiety. The fifth cause is students intend to
emulate other speakers rather than being themselves. Other possible causes of anxiety will be fear of potential negative outcomes and stuttering or difficulty to finding words. The next cause is students usually spending too much time over-preparing instead of developing confidence and trust in their own natural ability to succeed. The last two causes are dislikes being the center of attention and also they have low self-confidence. Ayres, Schlesian and Sonandre (1998) in their research found that students who feel they have skill deficiencies in public speaking apprehension often experience anxiety.

While, in the context of speaking English as a second language, Young (1991) listed six potential causes of language anxiety which include both personal and interpersonal factors, learner beliefs about language learning, instructor beliefs about language teaching, instructor-learner interactions, classroom procedures and language tests. However, to date, findings by Horwitz et al. (1986) have been the most influential. They identified three causes of language anxiety, that is, communication apprehension, test anxiety and fear of negative evaluation. Based on these three components they also designed a Foreign Language Classroom Anxiety Scale (FLCAS) including thirty-three items. This scale was later widely used by researchers to measure foreign language learners’ anxiety and examine the effect of anxiety on learning in different contexts.

RESEARCH DESIGN AND METHODOLOGY

Introduction

This explains about the steps taken in acquiring the needed data to answer the research questions. For better understanding, this is divided into six sections, which are:

i. Research Design
ii. Research Population
iii. Research Sample
iv. Data Collection Procedures
v. Data Analysis Procedures
vi. Conclusion

Research Population

For the purpose of this study, the target population is the Bachelor Degree students of the Faculty of Industrial Management in Universiti Industri Selangor (UNISEL), Berjuntai Bestari Campus, Selangor. The reasons to choose this population is because of the title of the project requires the study of anxiety and speaking English as a second language among male and female students of Industrial Management students in UNISEL.

Research Sample
The samples of this paper were selected through nonprobability sampling in which the sample are selected on the basis of convenience. The procedure that is used is convenience sampling which obtains those units or people most conveniently available.

The samples of this paper were chosen from the Bachelor Degree students of the Faculty of Industrial Management. There are five major courses in the faculty, they are; Bachelor of Finance, Bachelor of Industrial Management, Bachelor of Business Management, Bachelor of Marketing and Bachelor of Accounting. From these five courses, 150 samples are chosen where each course will have 30 respondents.

The reasons why these samples are selected because this represents the whole population of Bachelor Degree students in the Faculty of Industrial Management thus, it is reliable to answer the research questions.

**Data Collection Procedures**

There are two procedures in conducting this research project, by using secondary and primary data.

**Secondary Data**

Some of the secondary data that are used in this research are from journals, website, articles, books, and newspaper cuttings.

**Primary Data**

For the purpose of this research, the primary data is collected through a self-administered questionnaire.

**Data Analysis Procedures**

The data is analyzed using the Statistical Package for Social Science (SPSS). The results are then transformed into a quantitative measurement and for clear understanding; the data is represented using tables, bar charts and pie-charts.

**DATA ANALYSIS AND FINDINGS**

As stated earlier, the samples are the students of the Faculty of Industrial Management (FIM) and 150 samples are selected. The questionnaire was developed based on the Foreign Language Classroom Anxiety Scale (FCLAS) where the researcher changed the proposed scale in order to make it suitable for the current study.

Analysis for Part B: Adoption and Perception of Speaking English Anxiety
Statement 6: In classes, I forget how to say things I know
Referring to Figure 4.6, it can be concluded that female respondents experienced more anxiety compared to male respondents in terms of forgetting to say things they know even though the result is quite similar. From 75 female respondents, 20 or 26.7% agreed with the statements, and 19 male respondents (25.3%) agreed they sometimes forget how to say things they know in class.

Statement 7: I tremble when I’m going to have to speak in English
This statement was developed in order to analyze whether the respondents tremble when they have to speak in English. Out of 75 female respondents, those who agreed with the statement accounted for 22 students (29.3%). Only two strongly agreed (2.7%) that they were trembling when they had to speak in English in class. It can be concluded that the majority of the male students are less anxious compared to female students as only 25.3% agreed with the statement.

Statement 8: I start to panic and am confused when I have to speak in English without preparation
The result is quite similar for both genders. 36 female respondents agreed with the statement (48.0%), while, for male respondents, 37 (49.3%) agreed that they feel anxious when they have to speak in English without preparation. It can be concluded that, in terms of speaking English without preparation, male students experienced slightly higher anxiety compared with female students.

Statement 9: When I speak English, I feel like a different person
This statement was developed in order to identify whether or both genders felt that they are being somebody else when they speak in English. It can be summarized that most male students feel that they are a different person when they speak in English while 15 agreed with the statement (20.0%), while 14 of the female respondents (18.7%) agreed with the statement which makes them less anxious about being somebody else.

Statement 10: Even when I’m prepared to speak English, I get nervous
In this statement, the researcher wanted to determine whether the students are still nervous if they had prepared to speak in English (ie; during presentations, interviews, etc.) and which gender experienced more anxiety. Female respondents are more anxious compared to males with 44.0% being nervous even though they had prepared. Only 29 male students agreed with the statement (38.7%).

Statement 11: I’m afraid that my lecturers are ready to correct every mistake I make
More female students were afraid that their lecturers would correct their mistakes in class with 17 (22.7%) agreeing with the statement. This is because they are afraid of losing face by being corrected in front of others. Meanwhile for male students, only 16% are afraid of being corrected. Male students are usually not afraid of being corrected in front of others as they usually perceive it positively.

Statement 12: It embarrasses me to volunteer answers in class
From figure 4.12, female students tend to be more anxious compared to male as 20 (26.7%) agreed that they feel embarrassed when they want to volunteer answers in class. In contrast,
male students more willingly volunteer answers in class as they are more confident in themselves with only 10 of them (13.3%) agreeing with the statement.

Statement 13: I never feel quite sure of myself when I am speaking in class
This statement was developed in order to analyze whether the students feel confident when they were speaking in class and to identify which gender has more self confidence. It can be seen that both genders have the same percentage of 26.7%. But, there are minor differences that show that female students lacked self confidence in term of expressing themselves in English where 5.3% strongly agreed with the statement.

Statement 14: I always feel that the other students are speaking better than I do
This statement also shows that female respondents have higher anxiety levels compared to male respondents with 29 (38.7%) tending to agree with the statement. In contrast, only 26.7% or 20 male respondents feel that the others are speaking better than they are. The reasons for this might be because male students are usually perceiving the situation positively and they have more confidence in their ability compared to female students.

Statement 15: I am afraid that the other students will have a bad perception at me when I speak in front of the class
Perception of others is one of the major stressors of speaking English anxiety. In the findings, it can be analyzed that female students tend to keep thinking about the perceptions of others with 22.7% agreeing that they are afraid of others’ perceptions. Only 16% of male respondents agreed with the statement thus as a conclusion, female students have a higher anxiety level compared with male students.

Analysis for Part C: Open-Ended Questions

Question 16: How do you feel exactly when you had to speak in English while communicating with other persons and in front of a large group?
This question was developed in order to identify causes of anxiety of students when they had to speak in English. Out of 150 questionnaires that were distributed, only 50 of the respondents answered the open-ended question. Thus, the result of this finding is based from the answers given by the respondents.
For better understanding, the researcher identified the causes given by the respondents through an open-ended questionnaire and the results were then tabulated into a table. The table was divided into seven different causes of anxiety and the causes identified are:

i. Nervous/panic/shy
ii. They rarely speak English
iii. Afraid of audience
iv. Poor in English Language (in terms of grammar, pronunciation, etc)
v. Speaking with people who are fluent in English
vi. Lack of self-confidence
vii. Afraid of perceptions of others.
After the researcher had listed the possible causes of anxiety, the researcher then calculated and identified which causes are the highest among the students.

**FIGURE 1: CHARACTERISTICS OF STUDENTS**

It can be concluded that the majority of the students are afraid of the perceptions of others when they speak in English where 28 out of 50 respondents indicated the same answer. With a percentage of 56%, perceptions of others is placed as the major cause of anxiety and of speaking English. Most of the students are concerned about various kinds of evaluative situations in which their knowledge and performance of English are to be monitored by people around them. They are conscious about the facial expressions of other students and also of the lecturer. They afraid if their audiences look bored and confused, and cannot understand what information they try to deliver.

Many of them commented on the classroom situation in a negative manner, for example they would try to avoid eye contact with the lecturers, fearing they would be called on to answer some questions in front of other students, even if they were sure of the topics being discussed. They were afraid of losing face in front of their friends especially if their answers were criticized.

The second cause that can be identified is a lack of English proficiency with 40% of the respondents writing a similar answer. Some of them said that they are weak in English, some are afraid of making mistakes in terms of grammar, pronunciation and arranging of words, and also their perceived lack of knowledge about the class subjects that they were studying. But the most frightening classroom situation experienced by most of the students is when their perceived lack of English proficiency is combined with their lack of knowledge or "unpreparedness" of the topics in question. These factors contribute to their level of anxiety.

The next factor is audience, with 34% of the respondents writing the same answer. This is because they feel anxious when there are too many people in an audience and are afraid of being dumbfounded in that situation. The fourth factor is of rarely speaking English with 16 out of 50 respondents choosing it as one of the causes of language anxiety.
Feeling shy, nervous or panicking also contributes as one of the causes of speaking English anxiety with 28% of the total respondents agreed on the same answer. The results were similar with lack of self confidence with 14 respondents said that they believe they do not have the confidence to express themselves in English. The last factor that causes anxiety when speaking in English with people who are fluent in the language (26%). One of the students wrote that he feels anxious when he had to speak with people with a higher status as he believes these people are proficient in their English. There was also one student who wrote that she felt her confidence was lowered when she had to speak with foreigners.

It can be concluded that among all of the factors that can be listed from the open-ended questions, the top cause is the perceptions of others. This finding is also similar with the study of Kota Ohata (2005) where in one of his interviews with five Japanese who studied in the USA, the respondents agreed that they felt anxious when they thought about the perceptions of others when they had to speak in English especially because their peers are native speakers of English.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

To identify whether gender differences has an impact on the level of anxiety

Conclusion 1: In classes, I forget how to say things I know.
It shows that compared with male students, female students experience much more anxiety.

Conclusion 2: I tremble when I’m going to have to speak in English.
The researchers found that most of the female students are more anxious than male students.

Conclusion 3: I start to panic and am confused when I have to speak in English without preparation.
It can be concluded that male students tend to have more panic and confusion when they had to speak in English without preparation.

Conclusion 4: When I speak English, I feel like a different person
The result of this statement shows that male students tend to feel like they become somebody else when they speak in English.

Conclusion 5: Even when I’m prepared to speak English, I get nervous
The result of the finding shows that female students experienced nervousness and panic even when they are prepared to speak English.

Conclusion 6: I’m afraid that my lecturers are ready to correct every mistake I make
In this finding, the researchers identified that female students felt fear that their lecturer would correct their mistake directly in class thus embarrassing them in front of their friends.

Conclusion 7: It embarrasses me to volunteer answers in class
It can be concluded that male students experienced less anxiety when it comes to volunteering English answers in class.

**Conclusion 8: I never feel quite sure of myself when I am speaking English in class**

It can be concluded that there are similarities between both genders in terms of being confused in terms of their own capabilities when they had to speak in English.

**Conclusion 9: I always feel that the other students are speaking better than I do**

In this statement, the researcher found that female students tend to think about their friends who are much better than they are in English thus; they feel lower in self-confidence.

**Conclusion 10: I am afraid that the other students will have bad perceptions at me when I speak in front of the class**

It can be concluded that female students feel anxious about the perceptions of others when they have to express themselves in English in class.

Based on the overall findings, it can be concluded that female students tend to be more anxious compared with male students.

**To identify causes of anxiety while speaking English in public**

Based on the analysis from the open-ended questionnaire, the researchers identified several causes of speaking English anxiety. There are seven major causes, which have similarities with previous studies. Among the seven major causes, the highest stressor of speaking in English is the perceptions of others. This has been supported by Pappamihiel (2002), where in one of her interview processes, the participants in her study said that one cause that made him feel anxious is being afraid that the other students will laugh at him when he says something in a class.

One the causes that the researcher identified were similar to the study made by Woodrow (2006). In her study, Woodrow she found that the major stressor of speaking English is when the students were interacting with native speakers. The other causes that she identified are performing in front of a class and when a student had to give an oral performance.

Thus, from the findings, it can be concluded that English language anxiety is multidimensional where it affects students differently depending on the context of the situation. The respondents’ anxiety levels vary depending on the situation. This result is also supported by the study of Pappamihiel (2002) where she finds that English language anxiety is of a dynamic nature where it is possible it will affect students at many different ways.
RECOMMENDATIONS

For the purpose of this study, the researcher gives several suggestions in dealing with second language anxiety.

According to Rolls (1998) and Kim (2005), there are various strategies which can be used in coping with second language anxiety. The first strategy is to recognize your own feelings of second language anxiety. It is vital to identify your own feelings as in the process we will be able to recognize the causes of our anxiety. Just because people are nervous, it does not mean they have poor performance. Nervousness sometimes will help in enhancing the vitality and enthusiasm brought to the situation.

The next strategy is to share your feelings with others. It is helpful knowing that you are not suffering those feelings alone. Even professionals such as artists or experienced speakers may feel some sort of anxiety when they have to speak in public. Thus, having a slight feeling of anxiety is normal as it is experienced by many of us.

Students must bear in their mind that nobody is aware of their fright except if there is extreme signs of nervousness. Nervousness can be controlled. Students must focus on getting their message across to the audience and to not be afraid to make mistakes. Mistakes are the best way of learning so that we are less likely to keep making them. Many native English speakers do not speak a second language, so the fact that the students are able to converse in a second language at all says a lot.

Universities should adopt innovative approaches to minimize apprehension and maximize student achievement. Lecturers must encourage the students to express themselves in English and help them reduce their anxiety by giving them support. Lecturers might also used quick relaxation techniques such as that suggested by Psychologist Anthony Grasha to tense the body for a count of 10 and then breath deeply in and out to a count of four for a period of three to five minutes. This is especially effective after a tension-producing event.

The most important thing is, in order to increase the level of efficiency in the English language, we need to practice. Practice will make perfect. Practice speaking with friends or family, or even text messaging them in English which will also help to increase the level of proficiency in English thus indirectly, it will reduce the level of second language anxiety.

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THE NEXUS BETWEEN STRATEGIC CHANGE AND ORGANISATIONAL SUSTAINABILITY

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ABSTRACT

Research on the nexus between strategic change and organisational sustainability is limited and sometimes contradictory. For example, some scholars suggest a negative relationship between strategic change and organisational survival results. In contrast, others found that substantial environmental changes and strategic change are positively correlated with organisational performance and survival. Thus, it appears that research findings on this topic have not evolved into a coherent body of knowledge, and therefore requires more attention both to conceptual and methodological issues. The purpose of this paper is to revisit the issue and develop a theoretical framework and raise an empirically testable research question: Does strategic change contribute better organisational sustainability than organisational inertia?

BACKGROUND

Organisational sustainability has become increasingly important over the past two decades. The increasing importance can be linked to the rapid and radical changes that organisations face in their contemporary business environments; these changes, usually associated with uncertainties and business risks, have impacted upon organisational dynamics and sustainability.5 Transformations include various changes in market structure, stakeholders’ needs and positions, business boundaries, competition, knowledge and technological applications, supervision, and regulations. Moreover, since these changes frequently have disruptive impacts, their

5 There is no established conceptual definition of organisational sustainability in management literature. The word “sustainability” is frequently associated with physical or natural environmental issues. However, the term “natural environments” has different connotations with the terminology of “business environment”. Scholars usually use organisational performance (e.g. Cool and Schendel, 1987), organisational growth (e.g. Boeker, 1997) or organisational survival (e.g. Zuniga-Vicente and Vicente-Lorente, 2006) separately as the construct representing the dynamics of organisations. In this paper, the construct of organisational sustainability is developed as the integration of organisational survival, organisational performance and organisational growth in the long run.
occurrences have been affecting failures and survival rates in many countries (Freeman and Hannan, 1983; Tushman and Anderson 1986; Rumelt, 1991; Baum and Singh, 1994; Caprio and Klingebiel, 1996; Kaufman, 1996; Sull et al., 1997; McGahan and Porter, 1997; Demirgüc-Kunt and Detragiache, 1998b; Blejer and Skreb, 1999; Anderson and Tushman, 2001).

In facing such environmental changes, and in order to sustain existence and improve performance, many organisations have proactively reacted by managing organisational (and strategic) changes (Tushman and O'Reilly, 1997; DiFonzo and Bordia, 1998; Enoch et al., 2001; Pangestu, 2003; Knutsen and Lie, 2002; Brownbridge, 2002; McLeod, 2004). From this perspective, strategic change can be defined as those alterations an organisation implements in its business approach to better align itself with their changing environment (Feitler et al., 1997). The basic argument behind this definition is that adaptation to environmental changes is one of the major determinants of organisational performance and survival; since organisations have potential to adapt themselves to these changes; a strategic change is considered a rational course of action for organisations (Ansoff, 1965; Porter, 1980, Meyer et al., 1990; Miles and Snow, 1994).

On the other hand, there are also those organisations which have responded negligibly to environmental changes, preferring instead to remain inert and not perform any fundamental organisational (or strategic) change in response to their changing environments. The underlying premise behind this type of reaction is that organisations are basically inert and rigid; stability and equilibrium are the bases of organisational survival, and organisations have no energy to conduct instantaneous change. Accordingly, changes are costly, and any organisational action implemented in response to environmental change is considered potentially deteriorative to organisational sustainability. Therefore, if there is an observable alteration in organisations, it is viewed as evolutionary, and unintentionally marginal, rather than as an intentional and planned organisational change.⁶

These contradicting phenomena raise intriguing questions for scholars and business practitioners alike, of which some may be formulated as:

1) What is strategic change and structural inertia, and what are their determinants?

2) What are the relationships between strategic change (or, on the other hand, structural inertia) and organisational sustainability?

3) Which organisational reaction is appropriate in order to maintain organisational sustainability effectively?

**RESEARCH GAPS**

There is a lack of research on the nexus between strategic change and organisational sustainability. Moreover, the findings are noticeably contradictory. Some researchers (Singh et

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⁶ This phenomenon is the main interest of the *ecological approach* of strategic management theory. This approach argues that, basically, organisations are rigid and inert (Hannan and Freeman, 1984). Hence, strategic changes rarely occur in organisations.
al., 1986; Smith and Grimm, 1987; Zajac and Kraatz, 1993; Amburgey et al., 1993) found that during substantial environmental changes, strategic change is positively correlated with organisational performance and survival. However, Sheppard (1994), Ruef (1997) and Parnell (1998) found contrary results, suggesting a negative relationship between strategic change and organisational survival. It can thusly be concluded that research findings on this topic have not evolved into a coherent body of knowledge, and therefore requires more attention both to conceptual and methodological issues. This paper seeks to revisit the issue thoroughly and develop a theoretical framework and raise an empirically testable research question: does strategic change contribute better organisational sustainability than organisational inertia?

A significant gap can also be noticed with respect to research variables (especially the dependent variable). Previous studies have generally used very narrow and specific research variables; Boeker (1997) used organisational growth as the dependent variable. Segev (1987), Fiegenbaum and Thomas (1990), and Thornhill and White (2007) used only firm performance as the construct for measuring organisational life/dynamics. On the other hand Carroll and Delacroix (1982) merely used organisational mortality, and Zuniga-Vicente and Vicente-Lorente (2006) used organisational survival as the construct for the dependent variable.

Using specific and narrow variables is inadequate and inappropriate because of a reliability problem; it limits the veracity of the results. This problem is also associated with a construct validity issue; the use of narrow and overly specific dependent variables limits the ability of previous research in explaining the strategy-sustainability nexus in the context of organisational complexity (Ginsberg, 1988; Houchin and MacLean, 2005). In this vein, this paper will address the shortcoming by developing organisational sustainability as a more appropriate construct for capturing organisational dynamics and complexity.

LITERATURE REVIEW

THE CONCEPT OF “STRATEGY”

The word “strategy” comes from the Greek military term “strategos”, and literally means “the art of general” (Hart, 1967 in Snow and Hambrick, 1980). At the outset of its development, scholars viewed strategy from two different approaches. The first defines strategy as a normative concept, which considers strategy as a situational management art, an imaginative act of integrating numerous complex decisions (Andrews et al., 1965 and Andrews, 1971; Snow and Hambrick, 1980). From the perspective of organisation theory, this approach is clearly influenced by contingency theory that claims that there is no one best way in making strategic decisions and managing organisations (Donaldson, 2001).

In contrast, the other approach views strategy as a descriptive concept that refers to the key mechanisms and means (course of action and allocation of resources) used for charting a new direction to organisational ends (goals and objectives), and its impact on organisational

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7 Organisational growth and organisational performance are usually operationalised into a continuous scale, while organisational survival and mortality are usually operationalised into a dichotomous (discrete) scale (0 if an organisation is or becomes extinct [the mortality condition], and 1 if it survives in its normal operation [the survival condition]).

8 There is a notion in management theory focusing attention on the issue of complexity in organisation. This notion considers that organisation is a complex reality with multifaceted dimensions. Consequently, any research construct in management should be able to avoid any oversimplification in developing research constructs, and it should effectively capture the complexity of an organisation (Houchin and MacLean, 2005).
dynamics (i.e. structure and performance) is substantial and predictive (Chandler, 1962). From a theoretical perspective, this approach can be linked to the rational and positive views of organisation theory (Donaldson, 2005), stating that organisational dynamics follow some patterns of rational behaviour. Hence, a strategy (including its impact on the organisation) is analytical and predictable.

In modern organisational literature, the field of strategic management addresses a broader range of issues explaining how organisational entities (at the individual, group/unit, organisation, and industry levels) develop over time in the context of their environments (McGahan and Mitchell, 2002). Since organisations face constant environmental changes, strategic management research generally concerns itself with environmental changes, its impacts on organisations, and organisational adaptation (Ansoff, 1979; Hofer and Schendel, 1978 in Ginsberg, 1988). Moreover, Feitler et al. (1997) argues that the basic premise underlying strategic management research is that managerial decisions and actions in responding to business environment changes can be examined holistically and summarised as the basis for the development of an overall organisational strategy. This premise is in line with Mintzberg’s point of view (1994), arguing that organisational strategy emerges over time as managerial decisions accommodate changing realities surrounding an organisation. It can be seen that, environmental conditions are conclusively important in determining organisational dynamics, and can be inferred that an organisational strategy is basically derived from the integration of rational management decisions aligning organisations to their changing environments.

In further developing strategic management theory, some scholars have defined and distinguished some typologies of strategy. Porter (1980) has classified two types of generic strategy: cost leadership and product differentiation. Similarly, but relatively broader (as it includes the customer dimension), Treacy and Wiersema (1995) have distinguished operational excellence, product leadership, and customer intimacy as three different strategies. From their classifications, it can be inferred that both typologies seem to focus on the main aspects of the “business processes” dimension, in which organisations need to be competitive.

A different typology, which classifies organisational strategy into defender, prospector, and analyser, has been conceptualised by Miles and Snow (1978). This typology emphasises the positional differences amongst organisations in market competition. Moreover, from an organisational learning perspective, March (1991) dichotomises strategy into exploitation and exploration.

From these typologies, it can be observed that, in general, the existing classification of strategy types have broad similarities, especially in the aspects of organisational efficiency, reliability, refinement, execution, responsiveness, flexibility and expansion (Campbell-Hunt, 2000; Thornhill and White, 2007).

One important issue in relation with strategy typologies is the phenomena of strategy moves or strategy shifts from one strategy type to other strategy types. In the reality of management

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9 Based on Mintzberg’s conceptualisation (1994), after organisations formulate a new strategy, they implement it. In the process of implementation, organisations tend to establish this strategy systematically. In this stage, this existing strategy is known as a realised strategy. However, as environmental changes erode the effectiveness of the ‘realised’ strategy, organisations will deliberately develop a new strategy to replace the realised strategy. This new strategy is considered an emergent strategy. In the context of this paper, emergent strategy is analogous with strategic change.
practices, the issue includes the possibility of strategy alteration from one certain type of strategy to a new form of strategy. In strategic management terms, this issue is referred to as strategic change or a change of strategy.

**STRATEGIC CHANGE AND ITS DIMENSIONS**

Many scholars predict that by implementing successful strategic change continuously, organisations will be able to increase their long-term performance, and this long-term improvement will bring organisations to a better level of organisational quality and position. Emphasising the importance of dynamic interaction between organisation and its environment, Snow and Hambrick (1980) argue that strategic change can be considered a change in organisational strategy implemented by upper management in order to continuously maintain a proper alignment with organisational environments.\(^{10}\) In line with this, Van de Ven and Poole (1995) suggest that strategic change can be viewed from the differences of organisational forms and qualities (i.e. *position*) over time. Hence, continuous strategic changes are of importance in order to maintain organisational sustainability (Kuwada, 1998; Lawrence et al., 2006).\(^{11}\)

From this discussion, the extent that change in organisational strategy can be considered as a significant strategic change is not apparently obvious. Snow and Hambrick (1980) have raised a controversial issue concerning the difference between a *change* and an *adjustment* in strategy. They argue that the distinction between strategic change and strategic adjustment may be subtle, but it is important in building the theory.

However, some scholars consider that the debate on the difference between strategic change and strategic adjustment is somewhat trivial, since fundamental changes in organisational strategy may occur incrementally (Quinn, 1980), and they often result from the accumulation of continuously improved day-to-day activities in organisations (Pondy and Huff, 1985).\(^{12}\) Moreover, this is analogous with Mintzberg’s (1987) observation that “what seems tactical today could prove strategic tomorrow”, meaning what seems to be merely an *adjustment* today could be considered as a strategic *change* tomorrow. Accordingly, it can be posited that both strategic adjustment and strategic change are on a continuum (or a continuous change line), and the difference between each of them is a matter of a change in magnitude. Based on this, it can be assumed that strategic change is measurable because it has a degree/magnitude. It thus remains a pressing issue to find appropriate measurement methods (Doyd et al., 2005a and 2005b).

Another important discussion regarding the conceptualisation of strategic change is that of the *dimension* of change in strategy. As shown in Figure 1, Ginsberg (1988) summarises that a strategy can be viewed as a *position* and as a *perspective*; he describes how a strategic change

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\(^{10}\) In the literature of strategic management, this explanation is acknowledged as the central tenet of the classical approach of strategic management (Chandler, 1962; Ansoff, 1965; Andrews, 1971; Porter, 1980).

\(^{11}\) As already mentioned, environmental change can be disruptive to organisations, requiring organisations to undertake organisational and strategic change in order to maintain their sustainability. Besides, environmental changes can make the existing organisational strategy (or the ‘realised’ strategy) obsolete or ineffective. Hence, an emergent strategy based on some changes in realised strategy (i.e. strategic change) is required in order to maintain organisational sustainability.

\(^{12}\) This incremental change process is known as continuous improvement. In the context of the Japanese total quality management system, strategic change is frequently undertaken through “*kaizen*”, which is considered a continuous incremental improvement (Smothers, 1990; Zangwill and Kantor, 1998).
in position is revealed in the choices of the configuration (pattern) and number (magnitude) of product/market domains or competitive advantages through which firms define their relationship to their environment (Hedberg and Jonsson, 1977; Bourgeois, 1980; Ginsberg, 1988).

Moreover, Ginsberg noticed that a strategic change in perspective is reflected in the configuration (pattern) and intensity (magnitude) of integrated sets of ideas, norms and values through which organisational problems are perceived, learned and comprehended, and from which streams of strategic decisions and actions flow (Mintsberg, 1987; Ginsberg, 1988).

**FIGURE 1: GINSBERG’S DIMENSION OF STRATEGIC CHANGES**

<table>
<thead>
<tr>
<th>Change in Magnitude</th>
<th>Change in Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Change in the number of businesses in which a firm competes.</td>
<td>• Change in the relatedness of business in which a firm competes.</td>
</tr>
<tr>
<td>• Change in the intensity of a businesses’ specialisation.</td>
<td>• Change in the configuration of a firm’s resource deployments to functional areas.</td>
</tr>
<tr>
<td>• Change in the intensity of a firm’s resource deployments to functional areas.</td>
<td>• Change in the configuration of the norms and values.</td>
</tr>
</tbody>
</table>

Source: Adapted from Ginsberg (1988).

From figure 1, it can be noted that strategy as a perspective is associated with organisational culture. In organisational practice, this aspect is commonly formulated in the form of an organisation’s vision and mission statement. Hence, in many cases, one manifestation of strategic change can be reflected in the change of organisational vision and mission.

A different angle of analysing the strategy dimension is posited by Kaplan and Norton (1992 and 1996). They argue that the implementation of an organisational strategy can only be effective if organisations are capable of formulating strategy based on their vision and mission, and translating that into operational action. Following this argument, they recommend that top managers translate organisational strategy into four main interconnected spheres; finance, customer, internal business process, and learning and growth (Figure 2).

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13 Kaplan and Norton (1992 and 1996) call these four areas the main perspectives of strategy. In the last ten years, business practitioners (i.e. managers and strategic management consultants) have used these four perspectives as the “template” for formulating organisational strategy.
Based on this approach, it can be implied that the four perspectives of organisational strategy can be applied as the “pattern” or “form” of strategic change. Therefore, the degree (or the magnitude) of strategic change can be analysed from these four perspectives.

However, it seems that Kaplan and Norton’s four areas are overly specific and narrow. In this circumstance, the idea of a stakeholder’s approach (Freeman, 1984; Friedman and Miles, 2002) seems relevant and can be applied if extending Kaplan and Norton’s customer dimension. In relation to this, Atkinson et.al (1997) defines two groups of stakeholders: 1) environmental stakeholders, which include customers, owners, communities and government, and 2) process stakeholders, which includes employees and relevant suppliers. The importance of stakeholders is emphasised in the stakeholder approach because, according to this view, a company exists in order to serve the objectives of the stakeholders, which become its primary objectives (Freeman, 1984). Therefore, the notion of strategic change from a customer dimension can be extended to include shareholders, employees, suppliers, and other parties influencing organisational dynamics.

Moreover, the concept of a resource-based view (Barney, 1986, 1991 and 2001; Barney et al, 2001) is also relevant in expanding the idea of strategic change to the financial aspect. From this point of view, the financial perspective can be expanded to incorporate other non-financial tangible assets. It can also be extended to include intangible organisational resources such good will, brand image, and firm reputation.

In addition to giving attention to the manifestation of strategic change, a relevant analysis can also be focused on the causes of strategic change. This issue is primarily associated with the determinants of strategic change, discussed below.
DETERMINANTS OF STRATEGIC CHANGE

The classical approach of strategic management theory assumes that organisations can undertake strategic changes deliberately in response to environmental changes (Hofer and Schendel, 1978; Aldrich, 1979; Ansoff, 1979; Bourgeois, 1980; Lenz, 1980; Chakravarthy, 1982). Given this, business environments are considered external factors which essentially cause organisations to continuously change their strategies.

In contrast, the dynamic capabilities approach (Teece and Pisano, 1994; Teece et al, 1997) argues that strategic change is not automatically nor primarily forced by environments or external factors; organisations are fundamentally equipped with two internal processes with different directions. The first process is capability development, which is always related to the tendency of alterations and changes in organisations; the second one is capability deployment, which is frequently associated with the process of standardisation based on the establishment of knowledge and organisational rigidity (Teece and Pisano, 1994; Teece et al., 1997). Thus, unlike the classical approach that focuses on external factors, the dynamic capabilities approach emphasises internal organisational forces as the determinant of strategic change.

Based on the dynamic capabilities approach, it can be seen that the two internal processes do not have the same impacts on organisational change. In this regard, it is relevant to review Lewin’s perspective that emphasises the existence and interaction of two opposing forces in organisational change.\textsuperscript{14} Referring to Lewin’s model, the capabilities development process can be interpreted as the internal driving force of organisational change, while capabilities deployment can be classified as the internal restraining force of the change process. From this, it can be deduced that strategic change may take place if, and only if, the power of the capabilities development process (as the driving force) is stronger than the power of the deployment process (as the restraining force).

Unlike Lewin’s model (that considers that change forces may come from both internal and external organisational factors), the dynamic capabilities approach assumes that external environments are viewed merely as a change trigger, not as the driving or restraining force. However, as the change trigger, environmental changes still play a very important role in setting up a selection process that removes organisations lacking relevant capabilities to adapt with disruptive environments (Teece et al., 1997). Therefore, environmental changes set into motion a survival of the fittest mechanism in the dynamics of the organisation population.

From the above discussion, it is clear that although the dynamic capabilities approach differs with the classical approach (in conceptualising the antecedents of organisational change); both approaches are similar in acknowledging and emphasising the importance of organisational adaptation toward an organisations’ environment. Based on this, these two approaches can be classified as the adaptation view of strategic management theory.

\textsuperscript{14} Lewin’s change model (also known as “force field analysis”) raised the issue of organisational equilibrium as a “dynamic balance” determined by two opposing sets of forces: those seeking to promote change (driving forces) and those attempting to maintain the status quo (restraining forces). Different from the dynamic capabilities approach that focuses on the change process, which is determined by internal forces, Lewin’s model explains that the forces are not merely internal, but they can be both external and internal (Lewin, 1951; Burnes, 2004).
A different paradigm of organisational change is proposed by the ecological approach of organisational theory (Aldrich, 1979; Hannan and Freeman, 1977, 1984). As opposed to the adaptation approach; this theory argues that adaptation to environments does not occur at the level of individual organisations; Hannan and Freeman (1977) emphasise that individual organisations are subject to strong inertial forces. Thus, adaptation to environments occurs only at the population level (Hannan and Freeman: 1977, 1984, 1989), in which organisations replace each other as the environment changes.

Also known as the *structural inertia model*, the ecological approach argues that organisations are basically rigid and highly inert because they are influenced by two important organisational factors: *reliability* and *accountability*. These factors tend to preclude the process of organisational change. As a result, organisational strategy, as a core feature of organisations, is viewed as fixed at its inception and as unchanging over time (Freeman and Booker, 1984 in Zuniga-Vicente and Vicente-Lorente, 2006).

Based on Lewin’s perspective, organisational inertia can be viewed as the balanced (equilibrium) condition in which the restraining forces are stronger than the driving forces for change. Hence, “status quo” is the end result for organisations. In this case, the ecological approach considers it as the impracticality of change at the individual organisation level. On the other hand, if the driving forces are stronger than restraining forces, strategic change will certainly occur. This is the central hypothesis of the adaptation model.

Therefore, based on Lewin’s perspective, it can be considered that there is no substantial theoretical difference between the adaptation and structural inertia models. The main difference seems to be in the magnitude of change determinants. Under this circumstance, different phenomena found in previous empirical research might be due to the specific contexts influenced by locational and chronological variances (Vicente-Lorente and Zuniga-Vicente, 2006).

Therefore, it can be summarised that the determinants of strategic change can be viewed from two aspects: 1) the source of determinants (internal or external), and 2) the role of determinants (driving forces or restraining factors). Figure 3 summarises this classification.

**FIGURE 3: THE TAXONOMY OF CHANGE DETERMINANTS**

| Role of determinants | Source of determinants | \hline
| \hline
| Restraining | Internal Restraining Factors | External Restraining Factors |
| Driving | Internal Driving Forces | External Driving Forces |

*Note: This figure is a summary of change determinants based on the discussion of the literature review.*

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15 In certain aspects, the concept of structural inertia is somewhat in line with the idea of ‘realised’ strategy (Mintzberg, 1994), ‘competency trap’ in organizational learning (March, 1991), and the notion of organisational rigidity based on the transformation of organisational core capabilities into organisational core rigidities (Leonard-Barton, 1992).
External factors (or environmental conditions) may include laws and regulations, socio-economic and technological changes, industry structure, and business competition. Organisational factors may include organisational structure, organisational behaviour, or other characteristics of an organisation.

Furthermore, the mechanics of how external and internal forces determine strategic change (or organisational inertia) is depicted in Figure 4; it can be observed that interactions among external and internal factors are relatively complex. However, in line with Lewin’s model, the final result from all interacting forces is strategic change or organisational inertia.

As mentioned, the central issue of this paper is to investigate the effect of strategic change on the dynamics of organisational life; this paper develops the concept of organisational sustainability as the representation of organisational life and dynamics.

**FIGURE 4: MAJOR DETERMINANTS OF STRATEGIC CHANGES**

**THE CONCEPTUALISATION OF ORGANISATIONAL SUSTAINABILITY**

Scholars have used various research constructs to capture the idea of organisational success. Gaertner and Ramnarayan (1983) have studied the use of organisational effectiveness as the construct for organisational success. Their study shows that organisational effectiveness can be
evaluated based on organisational process (and structure), or measured by organisational outcome (output). Moreover, they found that these two approaches can be used for evaluating organisational success on a specific/individual organisational level, or an industry/population level.

Instead of using organisational effectiveness, some researchers have used other terms and included a time horizon in their study of organisational success. For example, Cool and Schendel (1987), Segev (1987), Fiegenbaum and Thomas (1990), and Thornhill and White (2007) use firm performance as the construct for organisational success. Moreover, Boeker (1997) used organisational growth as the construct for measuring organisational success. In their view, organisations will potentially achieve long-term success if they can maintain their performance (or growth) over time.

On a different note, Zuniga-Vicente and Vicente-Lorent (2006) utilised organisational survival as the construct for organisational success. According to Zuniga-Vicente and Vicente-Lorent, organisations are considered successful if they can survive in turbulent conditions. Interestingly, Carroll and Delacroix (1982) used mortality as the construct for approaching organisational success. In this case, they simply assumed that mortal organisations are successful ones.

Analytically, the above constructs appear inadequate in capturing the idea of organisational dynamics. Organisational survival (or mortality) only captures organisational reality in a certain point of time, while organisational effectiveness and performance seem to portray organisational dynamics in the short period. Hence, it is important to find a more comprehensive construct which is able to identify the sustainability of organisational life and portray the whole picture of organisational dynamics in a longer period. In this context, the notion of organisational sustainability is considered relevant and more appropriate.

Organisational sustainability is a new term in organisational theory. The term sustainability originates from the natural and ecological sciences, and has recently been integrated into organisational literature. Gottlieb (2005) suggested that the primary aspect of organisational sustainability is the ability of an organisation to continuously give assurances on the services it counts on over time.

With respect to organisational strategy, and in more specific strategic management literature, the term sustainable has been closely associated with the concept of sustainable competitive advantage; being that a company can maintain its long-term success if it can sustain its competitive advantage (Alderson, 1965; Hall, 1980; Henderson, 1983; Day, 1984; Porter, 1985; and Barney, 1991).

From this overview, it can be inferred that the measure of organisational survival and long-term organisational success is crucial in developing the construct of organisational sustainability. However, the concept of organisational sustainability is more comprehensive and complex. Table 1 distinguishes between the basic notion of organisational sustainability from organisational survival and organisational success.
TABLE 1: THE COMPARISON OF ORGANISATIONAL SUSTAINABILITY WITH OTHER CONSTRUCTS

<table>
<thead>
<tr>
<th>Construct</th>
<th>Time horizon</th>
<th>Aspect of measures</th>
<th>Brief definition and description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisational Survival</td>
<td>Measures the organisational existence at one point of time</td>
<td>Whether or not the organisation exists</td>
<td>Survival is the only criteria, defined here as existing and still in operation (achievement of organisational objectives and growth is irrelevant. The most important criteria is that it still exists)</td>
</tr>
<tr>
<td>Organisational Success</td>
<td>Measures the organisational dynamics between points of time, usually in short or longer period of time (1 to 5 years)</td>
<td>Organisational effectiveness</td>
<td>An organisation is effective if it achieves its objectives at one point of time. It does not matter whether or not the achievement of its objectives is efficient.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organisational performance</td>
<td>In addition to an organisation successfully achieving its objectives, the achievement should be done efficiently, and comparatively better to its past achievements and to its competitors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organisational growth</td>
<td>The growth of an organisation can be measured by comparing its organisational achievement (from tangible or intangible or both aspects) from time to time. The growth can be measured in absolute or percentage terms and it can be positive, zero or negative.</td>
</tr>
<tr>
<td>Organisational Sustainability</td>
<td>Measures organisational dynamics, usually over long or very long periods of time (at least 5 years; normally 25 years)</td>
<td>Includes the definition of organisational existence, effectiveness, performance and growth</td>
<td>An organisation is sustainable if it still exists, conducting normal effective and efficient operations, possesses good tangible and intangible performance (relatively and comparatively better from time to time and from its competitors) and has long term positive organisational growth.</td>
</tr>
</tbody>
</table>

From the perspective of set theory, the construct of organisational sustainability can be viewed as the intersection of four constructs. This can be illustrated as follows:
FIGURE 5: ORGANISATIONAL SUSTAINABILITY AS THE INTERSECTION OF FOUR OTHER CONSTRUCTS

From table 1, figure 5, and the theoretical framework developed in this section, organisational sustainability is definable as the condition of organisational dynamics in which an organisation can sustain its survival over time, simultaneously achieving its organisational objectives efficiently and attaining long-term organisational growth so that the organisation’s condition becomes relatively better than its previous condition, and comparatively better than its competitors.

In addition to this preliminary definition, it can be summarised that the construct of organisational sustainability is developed as the integration of organisational survival, organisational performance, and organisational growth. This construct is developed and elaborated upon in the theoretical framework of this paper.16

Having established the concept of strategic change and organisational sustainability, it is now necessary to examine the nexus between these two constructs, discussed below.

THE NEXUS BETWEEN STRATEGIC CHANGE AND ORGANISATIONAL SUSTAINABILITY

DIRECT RELATIONSHIP

As argued by the adaptation view of strategic management, strategic changes are implemented fundamentally in order to sustain organisational survival, performance, and long-term growth. Therefore, the adaptation view assumes the existence of a positive relationship between them (Singh et al., 1986; Smith and Grimm, 1987; Ginsberg, 1988; Zajac and Kraatz, 1993; Amburgey et al., 1993). But the ecological approach disagrees with the adaptation view

16 See figure 7
regarding the existence of a positive relationship between strategic change and organisational existence. This argument is supported by the empirical findings of Parnell (1998), Sheppard (1994), and Ruef (1997); the ecological approach rationalises that strategic changes are always risky. Hence, they frequently lead individual organisations to a new condition with a higher level of uncertainty, and consequently a higher degree of organisational mortality. Thus, strategic change will considerably decrease organisational performance, survival, and subsequently organisational sustainability. This negative relationship exists because the environmental selection process tends to favour organisations whose structures are difficult to change (Hannan and Freeman, 1977, 1984, 1989). Interestingly, the relevant studies find a direct positive relationship between strategic change and organisational sustainability.\textsuperscript{17}

Evidently, these two schools of thought are in competition; the ecological approach is arguably the antithesis of the adaptation approach, and can be considered the alternative hypothesis of the other. This paper will develop its framework based on the findings of Haveman (1992), Zajac et al (2000), Zuniga-Vicente and Vicente-Lorente (2006).

**STARTEGIC GROUPS\textsuperscript{18} AS THE MEDIATOR**

One important issue related to the nexus of strategic change and organisational sustainability is the existence of strategic groups (SGs) as the mediator between these two constructs. Researchers have observed the phenomena of similarities in strategic change behaviours among observed organisations. Based on these similarities, they identify the existence of SGs and its possible and relevant impacts on organisational life (Hunt, 1972; Cool and Schendel, 1987 & 1988; Mascarenhas, 1988; Fiegenbaum and Thomas, 1990; Lewis and Thomas, 1990; Leask and Parker, 2006).

The conceptualisation of strategic groups (SG) can be traced back to the works of Hunt (1972), Newman (1973, 1978), Porter (1973), and Caves and Porter (1977). Hunt (1972) identified vertical integration, product diversification, and product differentiation, as the main factors that formed strategic groups in the United States major home appliance industry during the 1960s-1970s.\textsuperscript{19} Hunt’s research was focused in analysing firms’ strategic behaviours and SG formation based on asymmetry (dissimilarities) and homogeneity (similarities) of those three factors implemented by firms within one principal industry (i.e. the home appliance industry). On the other hand, although only using vertical integration as the tool for analysing SG formation, Newman (1973, 1978) extended Hunt’s analysis by observing firm activities outside the principal industry (Newman, 1978 in McGee and Thomas, 1986). Thus, he suggested that SGs can also be identified not merely by observing the asymmetry or homogeneity of firms’ strategic behaviours in implementing their vertical integration strategy, but also by examining their activities which can be undertaken in different industries.

\textsuperscript{17} Especially in financial and banking institutions, i.e. bank performance, growth, and survival. See Haveman, 1992; Zajac et al., 2000; Zuniga-Vicente and Vicente-Lorente, 2006.

\textsuperscript{18} Generally, most scholars in the field of strategic management research agree with the concept that defines ‘strategic group’ as the group of firms in an industry following the same or similar lines of strategic dimensions (Porter, 1980; McGee and Thomas, 1986; Fiegenbaum et al, 1987; Tang and Thomas, 1992; Fiegenbaum et al, 2001; Zuniga-Vicente et al, 2004; Leask and Parker, 2006; Fuente-Sabate et al, 2007).

\textsuperscript{19} There are four types of strategic groups identified by Hunt (1973): i) full-line national manufacturers’ brand producers, ii) part-line national manufacturers’ brand producers, iii) private brand producers, and (iv) national retailers.
Furthermore, Porter (1973) developed a different approach in analysing firm strategic behaviours and the existence of SGs in industries. Using the relative size of a firm in its principal industry as the basis for SG formation, he dichotomised leaders and followers as the two main SGs in the consumer goods industries in US. Subsequently, Porter and Caves (1977) argued that either due to the differences in the risk posture, or in random differences in the skills and quality of assets, firms tend to invest in undertaking certain activities which can increase mobility barriers in the industry, hence forming SGs in the industry.

Based on the above four studies, strategic factors driving the formation of SGs vary in some aspects. From previous research, it can be observed that the formation of SGs may be identified based on strategic behaviours of firms from various aspects of the company, such as production, marketing, or finance. Moreover, this formation can also be analysed based on the structural features of companies. With respect to this, McGee and Thomas (1986) have categorised relevant strategic factors into three main sources of mobility barriers determining the formation of strategic groups in industries: industry supply (production) characteristics, market-related strategies and characteristics of firms.

The taxonomy of factors influencing SG formation can also be inferred from the discussion on strategic change. In this context, factors determining SG formation can be considered as firm strategic factors included in the dimension of strategic change. Syllogistically, it can be inferred that strategic change variables are the bases of SG formation. This proposition is in line with arguments developed in previous research (see for examples Fiegenbaum et al., 2001; Zuniga-Vicente et al., 2004 and 2006; Fuente-Sabate, 2007), proposing that strategic change behaviour determines the formation and existence of SGs. Consequently, if this proposition is valid, SGs may take the role of mediator in the relationship between strategic change and organisational sustainability.

Moreover, with respect to the methodological aspect in SG analysis, conventional studies identify strategic groups based on simple cluster analysis using cross sectional data (Hayes et al., 1983; Passmore, 1985; Amel and Rhoades, 1988). But using this approach, SG studies ignore the influence of time in SG dynamics.

The latest approach of strategic group analysis in the context of strategic change research considers a time horizon in analysing the homogeneity and heterogeneity of firms’ strategic behaviours over a long period of observation (Fiegenbaum, et al., 1987 and 1990; Fiegenbaum and Thomas, 1990 and 1993; Leask and Parker, 2006). In this perspective, the concept of stable strategic time periods (SSTPs) is introduced to portray the existence of consistent and relatively unchanged strategic groupings in the industry over the time period of study. With respect to this, the most appropriate data set is primarily panel data. In this circumstance, this paper will also attempt to analyse the phenomena of strategic groups by hypothesising the existence of SSTPs and its role as a mediating variable.

TOWARDS AN INTEGRATIVE MODEL OF THE NEXUS BETWEEN STRATEGIC CHANGE AND ORGANISATIONAL SUSTAINABILITY

See for example Harrigan, 1980; Oster, 1982; Ramsler, 1982; Hayes et al., 1983; Hawes and Crittenden, 1984; Ryans and Wittink, 1985; Amel and Rhoades, 1988; Fiegenbaum et al., 2001; Zuniga-Vicente et al., 2004; Leask and Parker, 2006.
MODELLING STRATEGIC CHANGE

Based on the literature review, this paper allows for strategic change to be defined as a significant degree of combined changes in fundamental aspects of organisational strategy. By integrating the dynamic capability approach (Teece and Pisano, 1994; Teece et al., 1997), resource-based view (Barney, 1986, 1991 and 2001), and stakeholder approach (Freeman, 1984; Atkinson, 1997; Friedman and Miles, 2002) into Kaplan and Norton’s strategic perspectives (1992 and 1996), this paper theoretically proposes four dimensions of strategic change: 1) organisational vision and mission, 2) resource allocation and market orientation, 3) stakeholder, and 4) business process and innovation.

This concept, as illustrated in Figure 6, concisely depicts that the fundamental aspect of strategic change is the change in organisational vision and mission. At the beginning of the change process, the change in vision and mission is not necessarily realised explicitly by all organisational elements (i.e. stakeholders). It is usually initiated and induced by top managers, before cascading throughout all units of organisation by change champions and middle management agents (Rogers, 1962, 2003; Kaplan and Norton, 2001).

FIGURE 6: THE MODEL OF STRATEGIC CHANGE AS A COMBINED CHANGE IN FOUR ORGANISATIONAL ASPECTS

It can be observed from Figure 6 that vision (and mission) is central to strategic change. This conceptualisation is supported by the notion which posits that vision is a prerequisite for change. An appropriate vision, which fits the internal dynamic of organisation and environmental changes, is decisive for successful change (Peters, 1987; Nadler and Tushman, 1989; Kotter, 1997; Nutt and Backoff, 1997; Kanter, 2001). Therefore, appropriate change in vision is a powerful tool for introducing positive organisational reform (Landau, et al., 2006).
As posited by Kaplan and Norton (1996, 2001 and 2004) the dynamic interactions among strategic perspectives follow a double-loop learning process (Argyris and Schon, 1974 and 1978). In line with that view, the theoretical framework of this paper considers that the four strategic change dimensions correlate to each other; thus the causality issue among them is considered multiplicitous.

As already discussed, Kaplan and Norton’s (1992 and 1996) customer perspective is considerably narrow in representing the firm’s interests toward its business environment and vice versa. Therefore, following Atkinson et al (1997), this paper proposes a stakeholder concept as an extension of the customer perspective, implying that changes in the number and composition of customers, employees, and shareholders, correspond to the dimension of strategic change with respect to the orientation of an organisations’ stakeholders.

Innovation can be viewed simultaneously as a product and process (Frei et al., 1998). In line with this perspective, this paper considers business process and innovation as one integrated dimension. Moreover, strategic changes in business process and innovation can be represented in the level of quality exercised in business processes. From this perspective, variation and intensity of technological applications are considered both appropriate and adequate in representing strategic change in business processes and innovation (Cronin, 1998; Koch et al., 2005; Saunders and Cornett, 2006).

MODELLING ORGANISATIONAL SUSTAINABILITY

Organisational sustainability, defined as the condition of organisational dynamics in which an organisation can sustain its survival over time, simultaneously achieves its organisational objectives efficiently, and continuously attains long-term organisational growth so that its condition is relatively better than its previous conditions, and comparatively equal to or better than its competitors’ conditions.

By reviewing various constructs utilised by other research, there are basically two important conditions that must be fulfilled in the construct of organisational sustainability. The first order condition, considered the “necessary condition”, is organisational survival (or organisational immortality), fulfilled by observing whether or not an organisation still exists and is conducting normal operations. From this viewpoint, the construct of organisational survival and mortality is relevant and applicable.

The second order condition, considered the “necessity condition”, is the measure of organisational success. This is measurable by evaluating the quality of organisational processes (and structures) and by collecting various measures of organisational output (performance and growth) over time, such as revenue, efficiency, profit, and customer satisfaction. These are illustrated in Figure 7.

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22 i.e. organisational effectiveness, performance and growth.
FIGURE 7: CONSTRUCT DEVELOPMENT FOR ORGANISATIONAL SUSTAINABILITY

The Nexus: Putting it all together into an integrative model

By unifying the theoretical aspects with the proposed model of strategic change and organisational sustainability together, this paper integrates five groups of research constructs into an integrative model that includes: 1) strategic changes as predictors or independent variables, 2) organisational sustainability as the dependent variable, 3) strategic group dynamics as a potentially intervening or mediating variable between strategic changes and organisational sustainability, 4) external factors as moderating variables which may positively or negatively alter the effect of strategic changes on organisational sustainability, and 5) firm specific factors and managerial characteristics as control variables. The meta-model depicted in Figure 8 summarises the relationships among all relevant variables in this paper.

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23 In the four dimensions of vision and mission, resource allocation and market orientation, business process and innovation, and stakeholder orientation.
24 In the four aspects of survival, effectiveness, performance, and long-run growth.
25 I.e. the existence of stable strategic time periods (SSTPs)
26 i.e. policy and regulation, market competition, socio-cultural factors and macroeconomic conditions.
FIGURE 8: THE NEXUS BETWEEN STRATEGIC CHANGES AND ORGANISATIONAL SUSTAINABILITY: TOWARDS AN INTEGRATIVE MODEL

The proposed integrative model (figure 8) summarises hypothesised relationships among research variables. From figure 8, it can be observed that the model theoretically agrees with the adaptation theory, hypothesising that strategic change has a positive direct relationship with organisational sustainability. Furthermore, the model conveys the fact that the relationship between strategic change variables and the existence of SGs (i.e. SSTPs) might be positive or negative. This means that the model assumes significant relationships between each strategic change variable and the existence of SSTPs, but is inconclusive regarding their directions. In addition, the model suggests a positive relationship between the existence of SSTPs and organisational sustainability.

CONCLUSIONS

The process of modelling the nexus between strategic change and organisational sustainability is complex, both in conceptualising the constructs important to the model, and the complexity of the intricacies in constructing a set of logical propositions supported by competent theory and sufficient empirical evidence.
The construct of strategic change proposed in this paper is represented by four variables of change: vision and mission, resource and market, process and innovation, and the orientation of stakeholders. These variables are considered effective in accommodating all essential dimensions of change in organisations.

Moreover, propositions developed in the model may interlink with each other in a system of equations. Consequently, the ideal process of analysis should be undertaken simultaneously using a systematic approach; the use of structural equation modelling can be considered an appropriate method.

Finally, it is understood that the model developed in this paper is by no means final or exhaustive, and can still be improved. However, the model is considerably more than sufficient to be used as an effective guide in undertaking empirical research. Therefore, what remains is to test the robustness of the model by undertaking empirical studies in various local settings in different countries with different socioeconomic and cultural backgrounds.

REFERENCES


FOREIGN DIRECT INVESTMENT AND INEQUALITY IN FOUR ASEAN MEMBERS

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ABSTRACT

We tested the impact of foreign direct investment on inequality in Malaysia, Thailand, Indonesia, and the Philippines. Our time-series analysis, employing the Autoregressive Distributive Lag (ARDL) technique, suggests that FDI improves income inequality in Malaysia and Indonesia but not in Thailand while it proved insignificant for the Philippines.

BACKGROUND

Amongst developing countries, four Association of Southeast Asian Nations (ASEAN)’s members-Malaysia, Thailand, Indonesia, and the Philippines-received large portions of Foreign direct investment (FDI) inflows via Multi-national corporations (MNCs) from 1970 through 1999. For the period surveyed, inequality, an indicator of relative poverty- as measured by estimated gini coefficients- appears decreasing in three ASEAN members except for the Philippines. The ASEAN-4 members’ inequality and FDI trends are illustrated in TABLE 1 and FIGURES 1A through 1D. Given the mixed trends amongst these ASEAN members, the main purpose of the study is to investigate the relationship between income inequality and FDI inflows in all four members.
### TABLE 1: ESTIMATED HOUSEHOLD INCOME DISTRIBUTION (GINI COEFFICIENTS) AND FDI IN (HUNDRED MILLION US DOLLARS) IN ASEAN-4 MEMBERS

<table>
<thead>
<tr>
<th>Country/Year</th>
<th>70</th>
<th>75</th>
<th>80</th>
<th>85</th>
<th>90</th>
<th>95</th>
<th>97</th>
<th>98</th>
<th>99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia Gini</td>
<td>44.97</td>
<td>42</td>
<td>39.08</td>
<td>42.67</td>
<td>40.62</td>
<td>37.9</td>
<td>38.34</td>
<td>38.28</td>
<td>38.1</td>
</tr>
<tr>
<td>Malaysia FDI Flows</td>
<td>0.94</td>
<td>0.35</td>
<td>9.33</td>
<td>6.94</td>
<td>26.11</td>
<td>58.15</td>
<td>63.23</td>
<td>27.13</td>
<td>38.95</td>
</tr>
<tr>
<td>Thailand Gini</td>
<td>48.49</td>
<td>49.53</td>
<td>49.42</td>
<td>42.45</td>
<td>48.2</td>
<td>41.93</td>
<td>41.93</td>
<td>42.1</td>
<td>44.4</td>
</tr>
<tr>
<td>Thailand FDI Flows</td>
<td>0.42</td>
<td>0.85</td>
<td>1.89</td>
<td>1.63</td>
<td>25.75</td>
<td>20.7</td>
<td>38.82</td>
<td>74.91</td>
<td>60.9</td>
</tr>
<tr>
<td>Indonesia Gini</td>
<td>50.56</td>
<td>50.22</td>
<td>50.26</td>
<td>49.98</td>
<td>46.38</td>
<td>47.87</td>
<td>44.97</td>
<td>44.49</td>
<td>n/a</td>
</tr>
<tr>
<td>Indonesia FDI Flows</td>
<td>0.83</td>
<td>4.76</td>
<td>1.8</td>
<td>3.1</td>
<td>10.92</td>
<td>43.46</td>
<td>46.78</td>
<td>-2.41</td>
<td>-18.7</td>
</tr>
<tr>
<td>Philippines Gini</td>
<td>47.26</td>
<td>45.59</td>
<td>43.05</td>
<td>46.32</td>
<td>48.18</td>
<td>47.96</td>
<td>48.04</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Philippines FDI Flows</td>
<td>-0.01</td>
<td>1.14</td>
<td>-1.06</td>
<td>0.12</td>
<td>5.5</td>
<td>15.74</td>
<td>12.6</td>
<td>22.12</td>
<td>17.25</td>
</tr>
</tbody>
</table>

**Source:** University of Texas Income Inequality Project (UTIIP) and United Nations Conference on Trade and Development (UNCTAD) Foreign Direct Investment Online Statistics.

The specific objective of this study is to examine the impact of FDI inflows and Gross Domestic Investment on the income-distribution equation of each ASEAN-4 countries in the long term. If the results are viable, policy implications will be drawn for each country surveyed.
Source: University of Texas Income Inequality Project (UTIP) and United Nations Conference on Trade and Development (UNCTAD) Foreign Direct Investment Online Statistics
LITERATURE REVIEW

There are several reasons on how FDI inflows might increase income inequality in a host country (Reuveny and Li, 2003). First, MNCs can exert pressure on host governments to cut welfare expenditure and curb labor unions to reduce wages, both of which will have an adverse effect on lower and middle classes. The apparent ease at which MNCs can “pack up and leave for another host country” is also a factor that decreases the bargaining power of host countries (Nafziger, 1997; Salvatore, 1998 in Reuveny and Li, 2003). Second, MNCs’ repatriation of profits from less-developed countries (LDCs) causes underdevelopment and hurt the poor. Third, the capital-intensive techniques utilized by MNCs is thought to promote unemployment among unskilled laborers, and to distort income distribution by creating an economy with a small advanced sector and a large backward sector [Muller, 1979; Lall, 1985; Jenkins, 1996; Robbins, 1996; Nafziger, 1997 in Reuveny and Li, 2003; Sylwester, 2005]. This is akin to Feenstra and Hanson (1997) argument that FDI inflows into developing countries cause a higher wage for skilled workers than unskilled workers, resulting in widening income inequalities. Fourth, MNCs are alleged to have low remuneration in labor intensive industries such as footwear and clothing, and also pushes domestic suppliers to follow suit in order to reduce the MNCs purchasing cost [Barnet and Cavangh, 1994 and Held et al, 1999 in Reuveny and Li, 2003]. Fifth, domestic tax systems are not well suited to tax MNCs. The smaller tax base reduces government revenue-and therefore, welfare expenditures-, which places the poor at a disadvantaged position than it does the wealthy [Haitzius, 1997 and Human Development Report, 1999 in Reuveny and Li, 2003].

A cross-country study on the effects of economic dependence on development and inequality by Christopher Chase Dunn (1975) finds that foreign investment is positively correlated with inequality. Saltz (1992) finds that a larger presence of FDI stocks significantly increases the share of income of the wealthiest households and decreases the share of income of the poorest households in the Third World. The rationale is that the degree of monopolization by multinationals increases the return to capital and that MNCs use more capital-intensive technologies or produce mostly in more capital-intensive sectors. Thus, it is likely that a larger presence of FDI causes a higher share of income to accrue to wealthier households. Tsai (1995) results show that only East and Southeast Asia’s less developing countries appear to be harmed by FDI stocks during 1970s. In other words, to the extent that FDI does have a negative impact on host countries’ income distribution, it is truer for Asia in the 1970’s than in any other geographical area. Lee (2006b) finds FDI flows to have a negative impact on income inequality in Europe.

On the other hand, there are also several reasons on why FDI inflows might improve income inequality. First, MNCs provide developing countries with capital and technology, improve their corporate governance, and propagate better management practices. These forces, in turn, raise productivity and promote economic growth [Hanad and Harrison, 1993, OECD, 1994, Coe et al., 1994, Blomstrom and Kokko, 1996, Marjusen and Venables, 1999, Batra and Tan, 1997, in Reuveny and Li, 2003].
Dollar and Kraay (2000) also support this view in which economic growth is thought to raise the income of the poor proportionally more than that of the rich, making FDI pertinent in reducing poverty (Stiglitz, 1998). If FDI increases the demand for unskilled workers or provides economic opportunities for those who would not otherwise be employed, then host FDI countries would experience an improvement in income inequality (Sylwester, 2005; Mundell, 1957).

Second, contrary to conventional wisdom, some scholars argue that MNCs cannot easily relocate from one country to another in order to reduce their labor costs because lower wages are often associated with lower labor productivity. In this manner, labor’s bargaining power is not necessarily diminished by FDI (Lawrence, 1994 in Reuveny and Li, 2003). If FDI increases the demand for unskilled workers or provides economic opportunities for those who would not otherwise be employed, then host FDI countries would experience an improvement in income inequality (Sylwester, 2005). This view is also espoused by Mundell (1957) who suggested that FDI inflows contribute to a reduction of income inequality in developing countries which is known as Mundell’s hypothesis. Furthermore, it is argued that host governments can regulate the operation of MNCs, thus controlling their effects on host economies [Vernon, 1971; Kurzer, 1993 in Reuveny and Li 2003].

Third, there are findings which show that FDI neither improves nor worsens income inequality. Mah (2003) finds that neither openness (trade) nor FDI inflows to significantly influence gini coefficients contrary to the widely held notion that globalization worsens income distribution. Hence, neither Mundell’s (1957) hypothesis which predicts that larger FDI inflows improve income distribution in developing countries nor the arguments of Feenstra and Hanson (1997) which postulate that larger FDI inflows worsens income distribution are supported by Mah’s findings. Even Figini-Gorg’s two-stage hypothesis that gini coefficients rise and then fall with increase in FDI inflows is not supported in the study. However, caution is required in interpreting Mah’s results as several explanatory variables were not stationary at any reasonable level of significance and hence, cointegration tests were not pursued rendering the results spurious. At best, the results are suggestive and far from definitive. Sylwester (2005) finds no strong relationship between FDI inflows and the change in income inequality while Lee (2006a) finds it insignificant to Asia.

**EMPirical model**

Tsai (1995) and Sylwester (2005) find no consensus on any theoretical framework to guide empirical studies on the relationship between FDI and inequality. We propose the following model to test the relationship between income distribution and FDI flows in the ASEAN-4 members (Mundell, 1957; Tsai, 1995; Feenstra and Hanson, 1997; Mah, 2003; Sylwester, 2005):

\[
Gini_i = \beta_0 + \beta_1 GDP_i + \beta_2 FDI_i + \beta_3 DOM_i + \beta_4 TRADE_i + \varepsilon_i \ldots \ldots (1)
\]

\[
Gini_i = \text{Estimated Gini index X 100}
\]

\[
GDP_i = \text{real per capita GDP}
\]

\[
FDI_i = \text{nominal gross FDI inflow as % nominal GDP}
\]
Based on Kuznet’s hypothesis, it is expected: $\beta_1 > 0$

Based on Mundell’s hypothesis, it is expected: $\beta_2 < 0$

Based on Feenstra and Hanson (1997), it is expected: $\beta_2 > 0$

The model will be estimated in natural the logarithm form.

**Variables and Data**

The gini coefficients used in this study are based on the University of Texas Inequality Project (UTIP). Although pay inequality and income inequality are different economic concepts, they are related argue Galbraith and Kum (2004). Galbraith and Kum consider manufacturing pay as a significant component of all pay in most countries because pay constitutes the largest single element in income for the majority of countries. Moreover, the manufacturing sector is very important to the economy. Largely unskilled and low-wage workers in manufacturing are substitutes for unskilled and similarly low-wage workers in services and agriculture, and vice versa (Galbraith and Kum, 2004, pl 8). Galbraith and Kum postulate that it is probable (though not certain) that changes in inequality inside manufacturing will tend to reflect changes in inequality in the structure of overall pay. These set of ginis are the most comprehensive data set surveyed. Furthermore, they represent an exciting alternative in estimating income inequality throughout the world as opposed to using the Deninger and Squire ginis data set that are computed from a mixed bag of household income and expenditure surveys, a mixed of different measures of inequality, gross and of net income, and a mixed of measures that are both personal and household income inequality. Moreover, UTIP ginis are standardized and can compare between vast numbers of countries possible, as well as accessible and free from publication restrictions. Other studies which employ the gini coefficient as a dependent variable to estimate income inequality are Bornshier, 1983; Tsai, 1995; Barro, 2000; Ravallion, 2001; Mah, 2003; Reuveny and Li, 2003; Lee, 2006a; Lee, 2006b).

Barro (2000) shows that gini value rises with GDP per capita for the value less than US 1,600 and declines hereafter. Modernization or neoclassical theory postulates that at the initial stage of development, GDP worsens income distribution. GDP per capita (Tsai, 1995) as opposed to GNI per capita (Mah, 2003) was chosen because FDI in the ASEAN-4 members is thought to contribute more to GDP as opposed to GNI. The real GDP per capita income is based on 1995 prices and sourced from the World Development Indicators 2003. The US dollar is used since most of the data available in this study are in that currency. This measure also follows the literature on the impact of FDI on income inequality. Lee (2006a) explains the disadvantage of using GPD per capita in purchasing power parity (PPP) adjusted income data is that it is sensitive to the differences in the consumption baskets of the various economic groups and hence converting per capita GDP at selected base year prices into dollars using the IMF exchange rates seems more appropriate. Using the US dollars in constant prices is further justified since not one of studies surveyed employ domestic currencies.
From 1970 to 2001, none of the ASEAN-4 members had increased its GDP per capita to its squared value and thus, the linear versions of the income inequality model was chosen by omitting the squared term of GDP per capita. The expected sign for GDP per capita is positive based on Kuznet’s inverted U hypothesis although a different outcome might be possible with a linear model since Kuznet’s hypothesis can only be fully tested with a quadratic function. Bornshier (1983) linear model results in a negative sign for the GDP per capita variable. Besides Tsai and Mah, others who use GDP per capita to test the impact of income levels on inequality are Lee (2006a); Lee (2006b); Sylwester (2005); Irdadian (2005); Reuveny and Li (2003), and Dixon and Boswell (1996). Lee (2006a); Lee (2006b); Sylwester (2005); Irdadian (2005); Mah (2003); Reuveny and Li (2003), and Tsai (1995) find income to be robust in determining inequality.

TRADE, both a proxy of openness and trade dependence, will be measured in terms of Import + Export / GDP X 100. This measurement eliminates the possible biases caused by the official exchange rate (Mah, 2003). Essentially, TRADE openness captures the degree that each country is integrated into the global economy.

Besides TRADE, Mah (2003) contends that the impact of FDI inflows on income distribution in developing countries must be taken into consideration since it impacts income distribution in the ASEAN-4 members in the same manner that TRADE does as described by the Stolpher-Samuelson theorem. Maher, Jesuit, & Roscoe, (1999) in Mah (2003) assert that there is not much literature on the impact of FDI inflows on income distribution although the relationship between the two is prima facie. However, the empirical results on globalization’s impact on income inequality are mixed.

FDI inflows and Gross Domestic investment will be expressed in terms of percentage GDP. FDI inflows data are sourced from UNCTAD online while Gross Domestic Investment data are sourced from World Development Indicators (2003).

**BOUNDS TEST APPROACH**

Following the modeling approach developed in Pesaran et. al. 2001; we start from the maintained assumption that the time series properties of the variables included in Equation (1) can be well approximated by a log-linear VAR (p) model:

\[ z_t = \mu + \sum_{i=1}^{p} \beta_i z_{t-i} + \epsilon_t, \ldots (2) \]

Where \( z_t \) is the vector of both \( x_t \) and \( y_t \) where \( y_t \) the dependent variable is defined as E, and \( x_t = \{GDP_t, FDI_t, DOM_t, TRADE_t\} \), is the vector matrix which represents a set of explanatory variables. \( \mu = [\mu_x, \mu_y] \), t is a time trend variable, \( b_i \) is a matrix of VAR parameters for lag \( i \). According to Pesaran et. al. (2001), \( y_t \) must be \( I(1) \) variable, but the regressor \( x_t \) can be either \( I(0) \) or \( I(1) \). We further developed the model as follows:
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\[ \Delta z_t = \mu + \alpha t + \lambda z_{t-1} + \sum_{i=1}^{p-1} \gamma_i \Delta y_{t-1} + \sum_{i=0}^{q-1} \phi_i \Delta x_{t-1} + \varepsilon_t \quad \ldots \quad (3) \]

where \( \Delta \) is the first difference operator. We then partitioned the long-run multiplier matrix \( \lambda \) as:

\[
\lambda = \begin{bmatrix}
\lambda_{yy} & \lambda_{yx} \\
\lambda_{xy} & \lambda_{xx}
\end{bmatrix}
\]

The diagonal elements of the matrix are unrestricted, and hence the selected series can be either I(0) or I(1). If \( \lambda_{yy} = 0 \), the \( y \) is I(1). In contrast, if \( \lambda_{yy} < 0 \), the \( y \) is I(0).

The VECM procedure described above is important in the testing at most one cointegrating vector between dependent variable \( y_t \) and a set of regressors \( x_t \). To derive our preferred model, we adhered to the assumptions of Pesaran et al. (2001) in Case III, that is unrestricted, that is, unrestricted intercepts and no trends. After imposing the restrictions \( \lambda_{xy} = 0 \), \( \mu \neq 0 \), and \( \alpha = 0 \), the income inequality specification in terms of the unrestricted error-correction model (UECM):

\[
\Delta \ln E_t = \beta_0 + \beta_1 \ln E_{t-1} + B_{4} \ln GDP_{t-1} + \beta_3 FDI_{t-1} + \beta_4 DOM_{t-1} \\
+ \beta_s \sum_{i=1}^{S} \Delta \ln E_{t-1} + \beta_7 \sum_{i=0}^{d} \Delta \ln GDP_{t-1} + \beta_s \sum_{i=0}^{r} FDI_t \\
+ \beta_s \sum_{i=0}^{s} DOM_{t-1} + \beta_{10} \sum_{i=0}^{T} TRADE_{t-1} + u_t \quad (4)
\]

where \( \Delta \) is the first-difference operator, \( u_t \) is a white noise disturbance term. Equation (4) can also be viewed as an ARDL order of \( (p, q, r, s, v) \). The structural lags are determined by using minimum Akaike’s information criteria (AIC). In this case, the long-run elasticity is derived by dividing each of the one lagged explanatory variable by the coefficient of the one lagged dependent variable.

After obtaining Equation (4), the Wald test (F-statistic) was computed to discern the long-run relationship between the concerned variables. The Wald test can be conducted by imposing restrictions on the estimated long-run coefficients of GINI, GDP, FDI, DOM, and TRADE. The null and alternative hypotheses are as follows:

- Ho: \( \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0 \) (no long-run relationship)
- Ha: \( \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq 0 \) (a long-run relationship exists)

The computed F-statistic value will be compared with the critical values tabulated in Table CI (III) of Pesaran et al. (2001). If the computed F-statistic is smaller than the lower bound value, then the null hypothesis is not rejected and we conclude that there is no long-run relationship between GINI and its determinants. Alternatively, if the computed F-statistic is greater than the upper bound value, then GINI and its determinants share a long-run level relationship. However, if the computed F-statistic falls within these bounds, the inference would be an inconclusive one.
EMPIRICAL RESULTS

The Bounds Test was used on all models to investigate the presence of a long run relationship among the variables specified for each country. In TABLE 2, the results of Pesaran et. al (2001) bounds test demonstrate that the null hypothesis $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$ against its alternative $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq 0$, is easily rejected at the 5% confidence level for all ASEAN-4 members. The computed F-statistics for Malaysia at 6.938993, Thailand at 10.04337, Indonesia at 9.939957, and the Philippines at 10.03422 are all greater than the upper critical bound of 4.68 for the 1% significance level. Hence, the null hypothesis of no cointegration is rejected at the 1% significance level.

Based on the test results, it is concluded that there exists a steady-state long-run relationship amongst the Gini Coefficient, GDP Per Capita, Domestic Investment, FDI, and TRADE for all four ASEAN members. Simply, for the ASEAN-4 members, all five variables do not move “too far away” from each other in the long-run.

TABLE 2: BOUNDS TEST FOR COINTEGRATION TEST

<table>
<thead>
<tr>
<th>Null Hypothesis: No Cointegration</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Computed F-statistic (Wald Test)</th>
<th>Malaysia</th>
<th>6.938993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>10.04337</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>9.939957</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>10.03422</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Critical Value</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>1% significance level</td>
<td>3.41</td>
<td>4.68</td>
</tr>
<tr>
<td>5% significance level</td>
<td>2.62</td>
<td>3.79</td>
</tr>
<tr>
<td>10% significance level</td>
<td>2.26</td>
<td>3.35</td>
</tr>
</tbody>
</table>

Decision: Reject or Accept null hypothesis at 5% significance level

Note: The critical value is taken from Pesaran et. al. (2001). Table C (iii) Case III. Unrestricted intercept and no trend.
The computed results of the long-run elasticities for the determinants of the gini coefficient are shown in TABLE 3. The long-run elasticity of each of the explanatory variables is calculated by dividing the long-run coefficient of each of the explanatory variable in the model with the long-run coefficient of the dependent variable and multiplying it with the negative term. Long-run coefficients are normally larger than the short-run coefficients and in cases when the short-run are larger than the long-run coefficients; it is attributed to the length of the lags used in the short-run.

The estimated results show that for Malaysia, GDP per capita, FDI, and Domestic Investment significantly influence the level of the gini coefficient. The estimated coefficients imply that a 1% increase in GDP per capita and FDI will lower the gini index by 1.108% and 1.10% respectively. The negative sign for \( \beta_1 \) does not support Kuznet’s hypothesis but it is supported by Bornschier (1983) linear model’s results. The significantly negative value for coefficient \( \beta_2 \) does not support Feenstra and Hanson’s hypothesis. Alternatively, it supports Mundell’s hypothesis. A 1% increase in domestic investment will worsen the gini index by 1.95% and hence, coefficient \( \beta_3 \)’s positive value does not support the postulation of the neo-liberal position that capital is capital. The different signs for FDI and domestic investment appear to augur well with the postulation that the Malaysian policymakers were politically motivated in encouraging FDI to ‘balance’ investment in the local economy. This period also coincided with the government’s affirmative action for Malaysia’s Bumiputras or sons of the soils beginning 1970s (Jomo, 2000). Furthermore, Ragayah Mat Zin (2002) in Embong (2004) finds that in the manufacturing sector, the shares of earnings for the lower income group had been increasing relative to the professional group in the managerial and professional category throughout the 1990s. Hence, it implies that the income inequality among workers in the manufacturing sector had reduced during that period which corroborates Malaysian government data of improving urban inequality assuming that the changes in the manufacturing sector wages and salaries can be regarded to reflect the urban areas. Likewise Rasiah in Embong (2004), explains that export manufacturing mainly via FDI helped raised female labor force participation rates, which quickened poverty alleviation. It appears that FDI inflows did have a positive impact in improving Malaysian inequality especially when domestic capital is associated with worsening inequality trend. Mohd Ariff (2007) in Sabanayagam, N., & Kamini, R. S. (2007) contends that

<table>
<thead>
<tr>
<th>TABLE 3: LONG-RUN ELASTICITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP Per Capita</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>FDI</td>
</tr>
<tr>
<td>Gross Domestic Investment</td>
</tr>
<tr>
<td>TRADE</td>
</tr>
</tbody>
</table>

Note: *** ** * denote significance at the 1%, 5%, and 10 % significance levels respectively.
For Thailand, the estimated results show that only GDP Per Capita, FDI, and TRADE are significant determinants of inequality. As such, a 1% increase in GDP Per Capita will decrease the gini coefficient by 0.36%. Again, β₁’s negative sign is in line with Bornschier (1983) as well as Ikemoto and Uehara (2000) who postulated that the Kuznets’ turning point could have happened several times in the Thai economy as in each time a new high-productivity industry is introduced into a matured economy. A 1% increase in FDI will lead to a rise of 0.09% in the gini coefficient. This finding does not support Mundell’s hypothesis. Hence, β₂’s positive sign means that FDI is associated with worsening income inequality in Thailand and is supported by Ikemoto and Uehara who postulated that the emergence of export-oriented manufacturing industries established by FDI increased income inequality in Thailand in the latter 1980s. Velde and Morrisey (2002) contends that Thailand attracted a quarter of FDI inflows into capital-intensive and relatively skill-intensive chemical, machinery, and electrical manufacturing sectors implying that FDI composition effect is unlikely to have reduced wage inequality which would have resulted in lower income inequality since wage is a large component of income. The crux of Ikemoto and Uehara’s thesis is that when an economic structure is rapidly changing, income inequality tends to be higher. Thus, it is no surprise that β₃ proved insignificant and renders Thailand’s domestic investment insignificant in determining income inequality as the Thai economy was changing to a domestic-oriented economy in the mid-1990s and the direction of income equality could not be established by Ikemoto and Uehara. Essentially the export-oriented economic growth could absorb the underemployed labor force in rural areas but it failed to decrease income inequality perhaps because the Thai economy was changing to a domestic-oriented economy that subsequently resulted in the bubble economy which burst in 1997 at the onset of the Asian financial crisis. In line with dependency theory as postulated by Mah (2003), β₄’s negative sign renders TRADE to have worsened income inequality for Thailand. As such a 1% increase in TRADE will worsen income inequality by 0.36%.

Indonesia’s estimated results indicate that only FDI and domestic investment significantly influence the level of inequality. As such β₁ is insignificant. Perhaps the level of economic development is less important than the Indonesian government’s redistributive policies and their implementation in combating inequality given the vastness of the country and the concentration of development in Java (Sjoholm, 2002). Given that both β₂ and β₃ have negative signs, a 1% increase in FDI and domestic investment will lead to a decrease in gini coefficient by 0.13% and 0.18% respectively. β₂’s negative sign supports Mundell’s hypothesis and refutes Feenstra and Hanson’s hypothesis. β₂’s positive sign is
supported by Oshima (1998) who explained that import-substitution policies protecting capital-intensive industries began to be dismantled in the mid-1980s, and export promotion was initiated under deregulation, devaluation, liberalization, and other reforms. According to Oshima, labor-intensive industries and non-petroleum exports grew rapidly while severe underemployment, which included 45% of the labor force in 1975 and 38% in 1980, fell dramatically to 13% in 1986. Consequently, this contributed to lowering of the rural gini coefficient during the 1980s. The UNDP-DITE (2006) sectoral FDI data corroborates Oshima’s analyses since approximately 60% of FDI flowed into labor-intensive manufacturing from 1989 through 2004. Again, the insignificance of TRADE is corroborated by Jomo (2000).

In Philippines’ case, only GDP Per Capita, Domestic Investment and TRADE are significant in determining the level of inequality. A 1% increase in GDP Per Capita will decrease inequality by 0.10%. As in previous cases, $\beta_1$’s negative sign is corroborated by Bornschier (1983). Growth enhancing policy reforms although mostly incomplete in the nineties have favorably changed the economic environment facing the poor and even more the non-poor. An economic downturn post 70s in the Philippines disproportionately decreases the poor’s resources in the Philippines (Baliscan, 1998). Unlike in the previous cases, $\beta_2$ is insignificant and renders FDI insignificant in determining the dependent variable (Velde and Morrisey, 2002). Amongst the countries surveyed, the Philippines ranked as the third lowest recipient of FDI inflows (UNDP-DITE, 2006). Hence, the study’s postulations on the significance of FDI and inequality are not supported in this instance. $\beta_3$ has a negative sign which translates to a 1% increase in domestic investment to having decrease the gini coefficient by 0.18%. This finding is supported by Bello (2005) who advocates the necessity to accumulate the capital necessary for strategic investments such as reinvigorating local manufacturing and agricultural industries through flexible application of the principle of subsidiarity or whatever can be produced at the local level at the least cost should be undertaken at that level (Baliscan, 1998). $\beta_4$ is significant and a 1% increase in TRADE will to a 0.12% increase in income inequality.

CONCLUSIONS

This study examines the impact of FDI inflows on income distribution in individual ASEAN-4 members from 1970 through 1999 using the ARDL approach. ARDL developed by Pesaran et.al (2001) is most suitable for small sample size studies such as this. GDP Per Capita, Domestic Investment, and Trade were included in the study to help explain the level of income distribution inequality in each ASEAN member. Essentially, this study tests several postulations. First, initial increases in GDP per capita would lead to increased inequality. Second, FDI inflows worsen inequality (Mah, 2003). Third, is Mundell’s hypothesis: FDI inflows improve income inequality and conversely that of Feenstra and Hanson’s hypothesis: FDI inflows worsen income inequality. Fourth, is that TRADE improves income distribution.

Several important conclusions may be deduced from the inequality models’ estimation results. First, GDP per capita is robust in explaining inequality in Malaysia, Thailand, and the Philippines but appears not to have any impact in
Indonesia. The negative coefficients for the three countries suggest that growth levels have had a part in reducing inequality from 1970 through 1999. In other words, the level of growth or possibly, the level of development, has had a role in reducing inequality in all of the ASEAN-4 members save for Indonesia. However, caution must be taken in interpreting the results of a linear model which usually generates a negative coefficient for GDP per capita. The sign could change with a quadratic function which would include a squared GDP per capita as an additional variable for growth levels if the degrees of freedom were adequate for estimation. Having explained the inherent constraints of a linear model, it is still plausible to state that growth that is concentrated in Java did not have much of an impact in reducing inequality in Indonesia. Hence, growth that is more evenly widespread could probably do much to improve inequality in that country. It must be mentioned that the redistributive efforts of and to a lesser extent Indonesia have also had a role in improving income inequality (Jomo, 2000).

Next, FDI is only significant in determining inequality in Malaysia, Thailand, and Indonesia but is insignificant to the Philippines. Rillo (2004) and Krinks (2002) contend that in the Philippines as in other developing countries, poverty and income inequality is a reflection of deeper structural problems that requires more concrete measures and policies to aggressively tackle the problems of land redistribution, corruption, and the continued dominance of oligarch elite in major industries. Amongst the four, the Philippines attracted the third least FDI flows for the period surveyed. For the Malaysia and Indonesia where FDI is associated with improving inequality, and the social safety nets for the very poor and the redistribution of assets and incomes towards them tend to require either important charitable activity or government intervention. While FDI has many characteristics that generate growth and raise wages and standards, it does not per se redistribute income towards the very poor. Nevertheless, foreign investment can often be important in creating the pre-conditions for such interventions. It is no secret that foreign investors do generate tax revenue required to fund assistance to the poor through their tax contribution (Klein et al).

Third, Gross Domestic Investment is relevant to the inequality model for Malaysia, Indonesia, and the Philippines but not for Thailand. Malaysia had attracted a considerable amount of FDI into the manufacturing sector which provided employment to its masses. But with Malaysian government current efforts to attract high-tech flows, FDI’s historical role as an income equalizer becomes questionable especially since there is evidence that not enough is being done to court Gross Domestic Investment which is out-flowing overseas that could have negative repercussions on the Malaysian economy. The government needs to introduce friendly policies to attract domestic investment just as it does FDI. At the same time, the Malaysian government should continue to attract low-tech FDI if it wants to pursue a more egalitarian growth given the lack of clear vision on the role of Gross Domestic Investment as an income equalizer. Of course, much more investigation is needed to find out why Gross Domestic Investment does not seem to improve inequality by decomposing it into public and private investment. Likewise, the negative sign for Thailand’s FDI coefficient suggests that FDI flows have had a detrimental effect on inequality in the country since it has played an important part in increasing wage inequality especially from 1985 through 1998 (Te Velde and Morrisey, 2002). Many economists have cited that FDI flows into
Thailand had gone into capital intensive sectors which did not provide employment to the masses. The Thai government should also continue to attract a substantial amount of FDI into the low-tech sectors so as to provide mass employment. This study demonstrates high-tech flows’ negative impact on inequality in the country. Furthermore, Thailand needs to put in place social policies that promote equity amongst Thais. According to CIA statistics, approximately 32% of income is in the hands of only 10% of Thais. More importantly, the Thai Board of Investment needs to determine the type of FDI inflows that provide more jobs and better pay for its TNCs’ employee. As previously mentioned, Te Velde and Morrisey also find FDI to be insignificant in determining wage inequality in the Philippines. This could mean that FDI may not have been much of an economic significance in terms of inequality to the country. However, Gross Domestic Investment appears to have a more definite role than FDI in becoming an income equalizer with its negative sign. The government of the Philippines should spend more money attracting Gross Domestic Investment not only as an engine for growth but also as an income equalizer. Given that the Philippines recorded a poor performance in agriculture in the 1980s and the first half of the 1990s which constrained the overall achievement in poverty alleviation, it would be strategic to domestically invest in agriculture given that it is a productive sector (Baliscan, 1998) and that commodity prices are soaring due to changes in world demand and supply. It is unclear how much the ASEAN-4 members spend to attract Gross Domestic Investment but its expenditure to attract FDI is thought to be considerable. Fourth, TRADE is a determinant of inequality only in Thailand and the Philippines but not for Malaysia and Indonesia. The findings on the insignificance of TRADE for Malaysia and Indonesia conform to the majority of empirical findings on inequality (Tsai 1995, Dollar and Kraay, 2000, and Dollar and Kraay, 2001). However, TRADE appears to worsen inequality for Thailand and the Philippines (Lee, 2006a and Cheung and Fan, 2002). It can be concluded that only one aspect of globalization as proxied by FDI flows is significant in impacting inequality for Malaysia and Indonesia whereas the other aspect of globalization -TRADE -is significant only to Thailand and the Philippines.

REFERENCES


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### APPENDIX

#### TABLE A: MALAYSIA: UNRESTRICTED ERROR CORRECTION MODEL RESULTS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMGINI(-1)</td>
<td>-0.24572</td>
<td>0.117807</td>
<td>0.0636</td>
</tr>
<tr>
<td>LMGDPDC(-1)</td>
<td>-0.26535</td>
<td>0.084301</td>
<td>0.0104</td>
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<tr>
<td>LMFDI(-1)</td>
<td>-0.26957</td>
<td>0.061655</td>
<td>0.0014</td>
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<tr>
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<td>0.093464</td>
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</tr>
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<td>LMTRD(-1)</td>
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<td>0.078461</td>
<td>0.1762</td>
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<tr>
<td>DUM</td>
<td>-0.01511</td>
<td>0.006244</td>
<td>0.0361</td>
</tr>
<tr>
<td>D(LMGINI(-1))</td>
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<td>0.235412</td>
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<tr>
<td>D(LMFDI(-1))</td>
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</tr>
<tr>
<td>D(LMFDI(-2))</td>
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<td>0.0152</td>
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<tr>
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<td>D(LDOM(-1))</td>
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<tr>
<td>D(LDOM(-2))</td>
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<td>D(LDOM(-3))</td>
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<td>0.0052</td>
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<td>D(LMTRD(-1))</td>
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<td>0.0896</td>
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<tr>
<td>C</td>
<td>0.638161</td>
<td>0.221705</td>
<td>0.0164</td>
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N=25

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<th>P-value</th>
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<tr>
<td>Jarque-Bera Normality Test</td>
<td>0.891437</td>
<td>0.640364</td>
</tr>
<tr>
<td>Breusch-Godfrey LM Test (Lag 1)</td>
<td>3.144065</td>
<td>0.109959</td>
</tr>
<tr>
<td>ARCH Test (Lag 1)</td>
<td>0.130577</td>
<td>0.721281</td>
</tr>
<tr>
<td>Ramsey Reset (Lag 1)</td>
<td>2.343284</td>
<td>0.160183</td>
</tr>
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### TABLE B: THAILAND: UNRESTRICTED ERROR CORRECTION MODEL RESULTS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTGINI(-1)</td>
<td>-2.007411</td>
<td>0.358936</td>
<td>0.0002</td>
</tr>
<tr>
<td>LGDPDPPC(-1)</td>
<td>-0.716435</td>
<td>0.131878</td>
<td>0.0003</td>
</tr>
<tr>
<td>LTFDI(-1)</td>
<td>0.187039</td>
<td>0.08752</td>
<td>0.0583</td>
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<td>LTDOM(-1)</td>
<td>0.00336</td>
<td>0.111349</td>
<td>0.9765</td>
</tr>
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<td>LTTRD(-1)</td>
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<td>D(LTGINI(-1))</td>
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<td>D(LTGINI(-2))</td>
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<td>D(LTGINI(-3))</td>
<td>0.907567</td>
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<td>D(LTGDPPC(-1))</td>
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<tr>
<td>D(LTGDPPC(-3))</td>
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<td>0.0647</td>
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<tr>
<td>D(LTFDI(-1))</td>
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<td>0.168654</td>
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<tr>
<td>D(LTFDI(-2))</td>
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<td>0.193516</td>
<td>0.001</td>
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<td>D(LTDOM(-1))</td>
<td>0.323166</td>
<td>0.133164</td>
<td>0.0356</td>
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<tr>
<td>D(LTDOM(-3))</td>
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<td>0.106798</td>
<td>0.0042</td>
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<td>D(LTTTRD(-1))</td>
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<td>C</td>
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<td>0.0001</td>
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N=25

Adjusted R-squared 0.66222
S.E. of regression 0.004982
F-statistic 4.360871
Prob(F-statistic) 0.012164

<table>
<thead>
<tr>
<th>Test-Statistics</th>
<th>P-value</th>
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<tr>
<td>Jarque-Bera Normality Test</td>
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<td>Breusch-Godfrey LM Test (Lag 4)</td>
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<td>Ramsey Reset (Lag 1)</td>
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### TABLE C: INDONESIA: UNRESTRICTED ERROR CORRECTION MODEL RESULTS

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<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>Prob.</th>
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<tbody>
<tr>
<td>LIGINI(-1)</td>
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<td>0.184146</td>
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</tr>
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<td>LIGDPDPPC(-1)</td>
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<td>LIFDI(-1)</td>
<td>-0.14977</td>
<td>0.050774</td>
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<td>LIDOM(-1)</td>
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<td>LITTRD(-1)</td>
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<td>0.04126</td>
<td>0.3458</td>
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<td>D(LIGINI(-1))</td>
<td>0.381278</td>
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<tr>
<td>D(LIGDPDPPC(-3))</td>
<td>-0.50149</td>
<td>0.215441</td>
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<td>D(LIFDI(-2))</td>
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<td>0.0287</td>
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<tr>
<td>D(LIDOM(-1))</td>
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<td>0.079556</td>
<td>0.0047</td>
</tr>
<tr>
<td>Variable</td>
<td>Coefficient</td>
<td>Std. Error</td>
<td>Prob.</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------</td>
<td>------------</td>
<td>--------</td>
</tr>
<tr>
<td>D(LITRD(-1))</td>
<td>-0.10773</td>
<td>0.034044</td>
<td>0.0075</td>
</tr>
<tr>
<td>D(LITRD(-3))</td>
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<td>C</td>
<td>2.335402</td>
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N=25

Adjusted R-squared 0.637734
S.E. of regression 0.005733
F-statistic 4.840873
Prob(F-statistic) 0.004482

<table>
<thead>
<tr>
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<td>Breusch-Godfrey LM Test (Lag 1)</td>
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<td>ARCH Test (Lag 1)</td>
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TABLE D: PHILIPPINES: UNRESTRICTED ERROR CORRECTION MODEL RESULTS

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<th>Variable</th>
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<th>Prob.</th>
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<td>LPGDPPC(-1)</td>
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<td>LPFDI(-1)</td>
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<td>D(LPFDI(-1))</td>
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<td>D(LPDOM(-1))</td>
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<td>D(LPTRD(-1))</td>
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<td>D(LPTRD(-2))</td>
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<td>C</td>
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N=25

Adjusted R-squared 0.717633
S.E. of regression 0.00482
F-statistic 4.360871
Prob(F-statistic) 0.012164

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<thead>
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<td>ARCH Test (Lag 1)</td>
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<td>Ramsey Reset (Lag 1)</td>
<td>2.256223</td>
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### TABLE E: RESULTS OF THE AUGMENTED DICKEY FULLER AND PHILLIPS-PERRON UNIT ROOT TESTS

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<tbody>
<tr>
<td>LMGINI</td>
<td>-2.164763(1)</td>
<td>-2.531420(1)</td>
<td>-1.470596(1)</td>
<td>-1.721873(1)</td>
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<td>-3.293426(0)</td>
<td>-3.04340(1)**</td>
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<td>LMGDPCC</td>
<td>-1.299400(0)</td>
<td>-1.730586(0)</td>
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<td>-1.909299(1)</td>
<td>-4.338705(0)*</td>
<td>-4.445077(0)*</td>
<td>-4.354665(1)*</td>
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<td>LMFDI</td>
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<td>-6.424913(0)*</td>
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<td>-2.906194(1)</td>
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<td>-2.188062(1)</td>
<td>-4.142183(0)*</td>
<td>-4.123558(0)**</td>
<td>-4.164567(1)*</td>
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<td>LMRTRD</td>
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<td>-2.785244(0)</td>
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<td>-2.884651(1)</td>
<td>-5.344784(1)*</td>
<td>-5.107442(1)*</td>
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<tr>
<td>LTGINI</td>
<td>-2.354814(1)</td>
<td>-3.318581(2)</td>
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<td>-3.059313(1)</td>
<td>-4.455410(1)*</td>
<td>-4.370420(1)*</td>
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<td>LTGDPC</td>
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<td>-1.986170(1)</td>
<td>-0.596621(1)</td>
<td>-1.398454(1)</td>
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<td>-3.097241(0)*</td>
<td>-3.163426(1)**</td>
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<td>LTDFI</td>
<td>-2.163167(1)</td>
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<td>-2.242788(1)</td>
<td>-2.803079(1)</td>
<td>-5.468957(0)*</td>
<td>-5.402358(0)*</td>
<td>-5.469105(1)*</td>
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<tr>
<td>LTDOM</td>
<td>-2.211653(1)</td>
<td>-1.356665(0)</td>
<td>-1.792365(1)</td>
<td>-1.594135(1)</td>
<td>-4.322448(0)*</td>
<td>-4.369921(0)*</td>
<td>-4.336675(1)*</td>
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<tr>
<td>LTTTRD</td>
<td>-0.111706(0)</td>
<td>-2.093408(0)</td>
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<td>-2.159769(1)</td>
<td>-5.832552(0)*</td>
<td>-5.759826(0)*</td>
<td>-5.831619(1)*</td>
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<tr>
<td>LIGINI</td>
<td>-0.639374(0)</td>
<td>-2.355704(0)</td>
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<td>-2.399104(1)</td>
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<td>-5.613488(0)*</td>
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<tr>
<td>LIGNPG</td>
<td>-1.828816(0)</td>
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<td>-1.710269(1)</td>
<td>-0.903883(1)</td>
<td>-3.969341(0)*</td>
<td>-4.269396(0)**</td>
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<td>LIFDI</td>
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<td>-2.723986(1)</td>
<td>-4.847377(1)*</td>
<td>-4.754558(1)*</td>
<td>-4.697610(1)*</td>
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<td>LIDOM</td>
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<td>-1.883977(1)</td>
<td>-4.406805(0)*</td>
<td>-5.273323(0)*</td>
<td>-4.421170(1)*</td>
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<tr>
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<td>-2.133157(0)</td>
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<td>-2.990924(1)</td>
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<td>-6.558792(0)*</td>
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<td>-4.916627(0)*</td>
<td>-5.055008(1)*</td>
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<tr>
<td>LPGDPCC</td>
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<td>-3.014309(1)</td>
<td>-2.334287(1)</td>
<td>-2.164366(1)</td>
<td>-2.980242(0)**</td>
<td>-2.959669(0)*</td>
<td>-3.108734(1)**</td>
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<tr>
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<td>-3.049361(0)**</td>
<td>4.213341(0)**</td>
<td>-3.010084(1)**</td>
<td>4.251705(1)**</td>
<td>-6.933844(0)**</td>
<td>-6.821100(1)*</td>
<td>-6.956481(1)*</td>
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<tr>
<td>LPDOM</td>
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<td>-4.425238(1)*</td>
<td>-4.513966(1)*</td>
<td>-3.983559(1)*</td>
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<td>-1.254589(1)</td>
<td>-4.660290(0)*</td>
<td>-4.701342(0)*</td>
<td>-4.662114(1)*</td>
</tr>
</tbody>
</table>

Note: */ **/* denote significant at the 1% and 5% levels, respectively.
DISTINCTIVE CREATIVITY ENDEAVOUR (DCE) MODEL FOR CREATIVE THINKING: AN EXPANSION OF OSBORN-PARNES CREATIVE PROBLEM SOLVING APPROACH

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Persiaran Kewajipan USJ 1,
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Selangor D.E.

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ABSTRACT

The research was borne from the notion that for creativity to flourish within a work environment that is constantly faced with pressure to perform and meet the challenges of the highly competitive business environment, employees need to be equipped with the necessary knowledge and skills to solve problems effectively as well as creatively as opposed to freedom from pressure. The need for acquiring skills pertaining to pressure threshold realisation as well as creative inspiration is necessary to access one’s preconscious level where active creativity lies. Many of the creative problem solving models seems not to take these two highly crucial elements into consideration and the DCE Model proposes an alternative. A comprehensive model was developed by enhancing upon the much acclaimed Osborn-Parnes Creative Problem Solving (CPS) approach by incorporating those two new elements into the model and subsequently testing the model via an experimental approach. The Creativity Index (CI) scores revealed that the DCE test group was most effective in bringing about overall creativity with an approximate of 48% increase after exposure to the principles of the DCE Model. When the two additional elements of pressure threshold realisation and creative inspiration were introduced separately via the CPSP and CPSI programs respectively, the percentage increase was only about 15% each. Combining results of the two programs where the two factors are independent in each of the program it amounts to only 30% which is lower compared to having both factors combined together as with the DCE program. As such, we can conclude that there is a cumulative effect when both those elements are present together.

INTRODUCTION

The research takes after the much acclaimed Osborn-Parnes Creative Problem Solving (CPS) model and combines two highly important and critical factors within the broad framework of creative thinking which are pressure threshold realization and inspiration and has important theoretical and practical implications for creativity at the workplace.
Today, with the advent of globalisation and mounting competition, the most sought after executive, manager, CEO or entrepreneur is not the most knowledgeable but the most creative. Technology via computers has virtually covered all the aspect of data storage, analysis, and memory. But one crucial criterion that will determine success or failure of an executive, manager or CEO is his or her creative vision (Nakamura, 2001). A source for creative performance and innovation in an organisation lies upon its employees and the difficult task of coming out with a unique yet effective idea that would virtually turn a company around is what makes an employee outstanding among the rest (Cummings & Oldham, 1997; Swailes, 2000; Kratzer et al., 2004). Creativity is important at the individual level, societal as well as at the economic level, and individuals, organizations and societies need to adapt to the vast changing demands in order to remain competitive (Sternberg & Lubart, 1999). Even the legal profession is in dire need for creativity and innovation as there is a need of reform and repair within the profession to remain dynamic (Tunney, 2000).

Schumpeter (1942) remarked that the same process of industrial mutation that revolutionises the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This was also supported by Alan Greenspan (1999) when he described the American economy was in the midst of a continuous process by which emerging technologies push out the old. It is this dynamism of a capitalist system, which allows the maximisation of output and creating total wealth over time (Taylor, 2002). As such, the main stimulus to economic development in Schumpeter’s viewpoint is creativity and innovation (Elliott, 1983). Schumpeter also defined innovation as being at the heart of the entrepreneurial role that is the linkage between new ideas and markets (Leede & Looise, 2005).

Schumpeter (1942) posits that creativity and innovation is the impetus for competition and capitalist change …

.....“it is still competition within a rigid pattern of invariant conditions methods of production and forms of industrial organisation in particular, that practically monopolises attention. But in capitalist reality as distinguished from its textbook picture, it is not that kind of competition which counts but the competition from the new commodity, the new technology, the new source of supply, the new organisation; competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives. This kind of competition is as much more effective than the other as a bombardment is in comparison with forcing a door, and so much more important that it becomes a matter of comparative indifference whether competition in the ordinary sense functions more or less promptly….“.

The vast array of approaches set out in inculcating and nurturing creativity is based on the spirit of being pressure and stress free. This approach to creativity seems to be in retrospect to actual conditions of any work situation and more so those faced by imminent creators since time immemorial. Most were faced with a totally new and insurmountable challenge or problem if it may be deem so and seek a solution to it. They had worked under extreme pressure to secure a practical solution and often experience a sense of creative illumination when the idea emerges. Many had reported to be inspired by the ruse or something they personally feel helps in bringing out that creative spirit in them. As such, training an
individual based on the principles of creativity which excludes pressure realization seems to be unrealistic to actual creative performance once one is back at the workplace, which is often riddled with various facets of pressure. This it is a pertinent to develop a comprehensive model for creative development taking into account elements of pressure as well as inspiration in developing and realizing the creative potential in each individual. This is due to the fact that certain conditions of pressure should be encouraged in the teaching and the development of an individual as it can be transformed into positive creative experiences that could be highly beneficial to the particular individual (Senyshyn, 1999).

Most creative thinking models are built on the foundation that pressure impedes creativity and should be avoided at all cost. However, it need be understood that all work environment are not stress and pressure free, and as such acquiring the principles of creativity which are based on such an approach would be totally ineffective once back at the workplace. Owing to that, this research, which aims to develop a creativity model based on these precepts, seems timely.

Owing to this, the research was formed to attain the objectives of whether there is a relationship between pressure threshold realization and inspiration on creative development.

Problem Solving View of Creativity

Gardner’s (1989) stand on creativity is linked directly to problem solving in a particular domain. Newell et al. (1962) defined creative activity as novelty, originality, persistence and the level of difficulty that characterise a unique class of problem solving. Originality encompasses the production of original or new ideas, which are ones that are novel and never thought off before. On the other hand, usefulness refers to ideas that bring value to a specific condition, being appropriate, significant and adaptive. This is evident as often creativity involves solving a particular problem and the creative ideas generated must not only be original but must be able to solve the specified problem. Vinake (1952) posits that creative thought is actually an intermediate between problem solving and imagination and it takes place in specific situations involving nearly indistinguishable problem solving behaviour and imagination.

Amabile (1983) stated that creativity is a combination of three main aspects, which are knowledge and capabilities relevant to a particular field, internal motivation and also skills for creative endeavours. The creative relevant skills include the know how to produce novel and useful ideas, work style such as ability to focus intensely on a problem and the ability to handle ambiguities during problem solving. The other view regarding creative cognitive processes is also directly related to creative development and reflects the steps involved in creative thinking of an individual in coming up with the final product. However, the creative product could be the person himself as he might have developed and learnt the art of overcoming creativity blocks, to understand and use the creative problem solving techniques and able to determine the creative potential in himself and within the group environment. He is one who is committed towards the ultimate goal of creativity and innovation.
Creativity defined in the most complete perspective is where it is a process of becoming sensitive to problems or deficiencies, sensing gaps in knowledge, aware of missing elements or disharmonies and searching out solutions, identifying or formulating hypothesis about the deficiencies; testing and re-testing these hypothesis and possibly modifying and re-testing them; and finally communicating the results (Torrance & Myers, 1970 & Torrance, 1974). This is by far the most comprehensive approach to creativity where it covers all the relevant aspects of creative thinking so often experienced by creative individuals. By way of this definition, the view taken is one of a process approach to creativity.

**Pressure and Stress**

Pressure at work is nowadays totally unavoidable owing to the current economic climate. Increased competition, pressure from clients to reduce fees and hours, increasing liability risk, rapid advancement of technology to keep pace with and standards overload are just some of the issues businesses and its people face. Most organisations are faced with instability as the rate of change is accelerating at enormous pace and employees are expected to adapt to these higher demands without complain (Williams, 1994; McHugh, 1997). With the increased expectation of higher efficiency and effectiveness, employees are subjected to enormous pressure throughout.

Pressure is unavoidable and in fact is necessary to produce higher performance and output. The importance of endurance, meaning the ability to endure pressure and failure, and persevere when others facing the similar problem had given up is a key factor to a project’s success and breakthrough (Sundgren & Styhre, 2003). Burton et al. (1999) and Crossnan et al. (1999) reported that pressure or tension is necessary for learning and for the exploration and exploitation for learning. However, it needs to be managed properly as it can also be negative and detrimental to overall performance if it becomes stress in turn. Pressure is neither positive nor negative. The way that an individual reacts to pressure is said to be much more important than the pressure in itself (Anspaugh et al., 2000). If pressure is channelled in the right direction, it can bring about optimal levels of performance.

There are generally two modes of an increase in pressure. Individuals could both learn to adapt to this pressure increase and continue to develop and experience growth. This is referred to as resilience adaptation. The other outcome of pressure is the inability to cope with the increase in pressure and begin to experience stress. In short, stress occurs when one is unable to cope with pressure.

Stress is defined as a temporary experience to state anxiety. It takes place when pressure levels start to further increase and one’s coping mechanism begins to be stretched. As such, pressure is the force that may produce stress.

Stress according to Seyle (1978, 1993) is defined as the non-specific response of the body to any demands made upon it. Stress has often been linked to its debilitating effect on one’s psychological stability, physiological stamina as well as adaptive functioning (Bloyd, 2003). However, recent literature seems to be moving away from this stand and viewing stress in the
light of its strengths and benefits that might bring about some positive outcomes to those affected. If utilised wisely, it is a force that generates and initiates action. This type of approach to positive stress is termed eustress (Seyle, 1978). It helps in emotional as well as psychological growth. Eustress is synonymous to pleasurable experiences, meaningful life and fosters an attitude of positiveness in terms of solution finding when faced with complex and challenging problems. Distress on the other extreme is linked to negative responses.

Individuals resort to coping strategies to handle the increase in pressure. Coping is a process where an ongoing cognitive and behavioural effort is employed to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of a person (Shimazu & Kosugi, 2003). Based on the process theory of stress, coping changes in accordance with the situational contexts where it is used and the strategy used to handle it determines one’s mental health. A coping-situation match that is emotion-focused or even avoidance strategies may be adaptive in situation where there is no personal control. A problem-focused or active strategy on the other hand is more effective if used in situations where a higher degree of control can be exerted over the situation (Mattlin et al., 1990; Zakowski, et al., 2001).

**Performance and Pressure**

The Inverted-U Theory developed by Hanson (1986) explains the stress response, which can actually enhance and increase the level of either mental or physical performance as depicted in Figure 1.

**FIGURE 1: TYPES OF PRESSURE ON PERFORMANCE**

Hypostress, which is the lack of pressure, result in lack of effort. There exists an optimal level of pressure, which brings about peak performance, which is termed eustress. Anspaugh et al. (2000) lists some of the positive outcomes that can be associated with pressure. From a physical viewpoint eustress brings about high energy levels, increased stamina, flexibility of muscles and joints as well as freedom from stress-related disease. Emotionally, eustress
brings about a better sense of control, a higher responsiveness to the surrounding environment as its alertness, improved interpersonal relationships as well as morale.

The majority of individual’s performance when related to pressure is depicted in Figure 2. When the individual is faced with lack of stimulation, boredom tends to step in and it can be a source of stress in turn. Individuals who have repetitive tasks in their jobs often face this predicament. This state is termed the boredom zone. An increase in pressure often results in the individual feeling a sense of urgency and need to perform better. This type of pressure is seen as positive in nature as it tends to stimulate individuals to face up to the challenges and seize the opportunities and if taken, one’s confidence and self-esteem grows in tandem. This state is termed the comfort zone.

**FIGURE 2: EFFECT OF PRESSURE ON PERFORMANCE**

The next state is the stretch zone where pressure increase slightly and the individual will try to adapt to that pressure increase. If he is able to handle that pressure, his performance and output is at is optimum level. When pressure is continuously increased the individual will begin to feel high stress levels and strain. If one is unable to cope with that pressure, performance is affected as the coping mechanism begins to succumb to that pressure. This is called the strain zone. Further increase in pressure often results in a state of panic where the mechanism to cope with pressure-increase completely breaks down. Here the stress levels are unbearable and a severe drop in performance is experienced. When pressure reaches optimal levels individuals may start to experience a sense of uptightness as well as feeling tense, depressed and anxiety. This is an indication of stress and if it is not curtailed the affected individual can experience worn out or even burn out (McHugh, 1997).

Carson and Runco (1999) reported that it is not the actual pressure that influences one’s mental and emotional health, relational functioning and physical well-being but more of how the individual reacts, experiences and copes with it that really matters. Heaney (2001) reported that a certain degree of pressure is necessary to help one keep focus of mind and also encourages the individual to complete tasks and not procrastinate. However, excessive pressure does bring about stress in the long term and stress is said to be detrimental to
performance effectiveness. In order to cope with pressure and avoid stress is to have a well-defined objective or goal and being able to prioritise of what needs to be done (Heaney, 2001).

When pressure leads to stress, an individual’s performance starts to be affected as well as personal well-being and health. Higher incidences of absenteeism, lower productivity and job dissatisfaction, and a higher turnover are some of the behavioural patterns often observed. Also observed is an increase in recruitment and retraining costs when a higher turnover rate is experienced (McHugh, 1997).

Individuals who are categorised as hardy individuals tend to demonstrate a positive psychological outlook that serves as a buffer against distress as well as illness. These individuals perform better under stressful situations compared to low hardy individuals (Kobasa et al., 1981). As such, hardiness acts as buffer moderating stress reactions. However, the actual mechanism used by hardy individuals is still unclear and not fully understood.

Maddi (1999) reported that hardy people view stressful events in a much broader perspective, remaining optimistic and are proactive in deciphering meaning under those challenging conditions. Maddi and Kobasa (1984), Rhodewalt and Zone (1989) and Wiebe (1991) stated that these individuals often alter their perceptions of stressful events to make it less negative and utilise active transformational coping throughout. They do not subject themselves to the stressful situation but actively seek out transformational coping strategies to make it more desirable and palatable (Orr & Westman, 1990). Transformational coping strategies encompass how the stressful situation is perceived, imagination activation or imaginative stimulation and decision making in producing ways of overcoming the stressful situation, ways of mobilising resources and performing any other activities in decision making (Kobasa et al., 1985).

Hardiness is synonymous to one’s appraisal of stress per se based on the context. Hardy individuals were found to rarely deny or exclude the stress especially in situations where they had to themselves prepare to face and handle it. However, they were said to have a positive outlook of the stress situation upon completion of the task and this is said to be due to their active coping mechanism that they had accessed. Westman (1990) states that hardy individuals make decisions and implement action plans that are very much based on the actual context of the situation as they have a positive outlook to life. Both hardy as well as non-hardy individuals experience stressful events in similar ways but the hardy one’s tend to appraise their lives as being less stressful and more often found to be optimistic (Schlosser & Sheeley, 1985; Rhodewalt & Zone, 1989). It is hypothesised that these individuals are more able to access and utilise creative thinking approaches to problem solving in order to solve a problem and also alter the stressful event making it more enjoyable and acceptable as opposed to low hardy individuals. This unique capability comes with an inert need for additional time to access their creative abilities (Bloyd, 2003).

Creativity and Pressure

Ford (1996) and Jex (1998) stated that stress and strain would result in lower motivational levels, reduced performance and less creative actions. They also mentioned that work
pressure results in lower levels of creative output. However, it was found to be inaccurate as pressure or stress could bring about higher levels of creativity but depending on the type of stress experienced. Jex (1998) posits that this could be one of the reasons of past results in terms of pressure and creativity, which have been inconclusive up to now.

VanGundy (1987, 1988) postulated that optimal work output could be achieved if an optimal work pressure is exerted. Excess work pressure results in an increase in stress, which negatively affects the flow of creative ideas, whereas too little work pressure in turn results in low internal motivation and poor creative output. Optimal work pressure produces just the right amount of freedom for creative exploration.

It was found that the effect of eustress on the psychological make-up is enhanced level of creativity as well as thinking ability, greater goal orientation or focus and increased levels of motivation. Therefore, the proper usage of pressure in work environments can bring about high levels of creativity and innovation and as such, pressure and stress should not be viewed as entirely detrimental to creative endeavours.

In times of heightened creative periods, an individual may experience anxiety, pressure, stress, depression or feelings of inadequacy. However, the creative process in itself might actually act as a buffer or neutraliser to compensate for some of the potential negative influences of these pressure situations (Carson et al., 1994). Preparing or building an individual up to reach a creative plateau could be much more effective if they learn and acquire approaches that could assist them in handling and neutralising some of these stressors. Pressure and anxiety supplies the creative energy and is the means of achieving a measure of self-realisation in the process (Senyshyn, 1999). It is what that awakens them to their unlimited and creative potential. Learning how to handle or cope with these stressors does help people produce more creative outputs during decision-making, goal setting and problem solving (Carson & Runco, 1999).

Richards (1990) stated that most creative individuals are able to handle stress and pressure well, and have a well-integrated personality which reflects a stable emotional and psychological state. They are also reported to be more resistant to social pressure as well as pressure to conform (Carson & Runco, 1999). It is believed that creativity could actually be directly related to one’s capability to cope with stress (Carson & Runco, 1999). Creative problem solving is apparently a means of resolving this pressure or stress and adapting to these kinds off situations (VanGundy, 1987; Runco, 1994). As such, creative problem solving abilities is linked to positive mental health and having an internal climate, which refers to one’s positive psychological and mental outlook, is paramount for creative endeavours (Carson & Runco, 1999). Even though the external environment can be stressful, it is important that internally the individual is in control at all times. And by using the creative problem solving approach, many negative aspect of the internal climate could be overcome as long as a minimal level of internal motivation exist (VanGundy, 1987, 1988).

Dyne et al. (2002) research on the relationship between work pressure and home strain on creativity revealed that as work pressure increases, creativity levels also increase in tandem provided there exist a strong level of relationship between employee and the superior. This is
valued as having lots of communication taking place, support as well as encouragement, which is a form of inspiration to the employee. Owing to that, work pressure actually helps promote creativity provided there is a lot of support and encouragement shown by their immediate superior. On the other hand, home pressure or stress resulting from the family is detrimental to creativity irrespective of the type of leadership and support provided by the management (Dyne et al., 2002).

Best ideas can actually be produced when faced with pressure. The need to think fast is seen as an approach to creative thinking. It helps bringing about focus and urgency. Taylor (1966) had reported that creative individuals were found to be able to handle and withstand higher levels of stress. Pressure does indeed help in coming up with an answer. So the pressure to get someone to say something on the spot during creativity or eureka training process does produce results (Mattimore, 1993).

This study aspires to determine whether people can be tuned to understand their pressure threshold or acceptable levels of pressure and then accessing their creative abilities producing outstandingly creative outputs without succumbing to the pressure itself. This approach to creativity is essential as work environments are far from being pressure-free and the common adage that creativity flourishes only in environments free from pressure needs a rethink.

**Incubation Process**

Incubation, a period when the conscious thought process is directed away from a particular issue has long been viewed by psychologist and psychiatrists as a regressive thought process. However, it was first stated by Wallas (1926) of being critical to genuine creative thinking and inspirational breakthroughs. According to Kubie (1958), the preconscious rather than the unconscious was responsible for creativity. He hypothesised that the preconscious state is endowed with the flexibility much needed in creative thinking unlike the unconscious that is rather rigid and stifling. To this, incubation should be encouraged, as it is not only healthy but also progressive.

May (1975) noted that the creative process is not an irrational process but a suprarational process. This suprarational stage involves the combination of the emotional aspect together with the volitional and intellectual perspectives. It encompasses a realistic problem encounter, intense involvement, focus and absorption coupled with heightened consciousness and inter-relationships. Creative thinking is deemed as the highest degree of emotional health and is the means of self-actualising (May 1975). Arieti (1976) further postulated on the creativity issue and stated that creativity is the magic synthesis, binding together of the primitive and irrational forces of the unconscious together with the logical and rational processes. He termed the preconscious state as a “tertiary process” differentiating between the unconscious and logical processes.

Rothenberg (1976a) proposed two nonregressive states to explain creativity. The first, he coined as Janusian thinking that consists of actively perceiving two separate and totally opposite concepts, images or ideas at a particular point in time. The second is Homospatial thinking, that takes place when two or more differing entities are viewed simultaneously in a
particular location bring about the birth of a new identity Rothenberg (1976b). Janusians as well as homospatial thinking are advanced forms of secondary-process thinking and do not take place in a primary thinking mode. They at times defy logic as it transcends the ordinary, rational thinking thought processes. Both these types of thinking are an integral part of creative thinking and are useful in describing the processes taking place during the incubation stage of problem solving. This unity of opposites or diversity is a common phenomenon experienced by successful creators (Barron, 1969; Prince, 1970; MacKinnon, 1978).

Torrance (1995) listed the important criteria during the incubation process for high quality creative thinking to occur. Firstly, various states of consciousness other than the rational, logical, conscious state need to be activated at least for brief periods throughout the process. Secondly, intellectual, verbal expressions as well as emotional functions must be simultaneously activated and brought together. Thirdly, the reason towards solving a particular problem need to be evident right from the onset and intense focus, absorption, commitment, involvement and heightened consciousness taking place during the incubation stage. The next criterion is the realisation of completely opposite and contradictory view regarding a particular concept or situation and the need for the ideas to be confronted simultaneously. The last criterion is the usage of at least two of the modalities for successful incubation to creative solutions.

**Inspiration**

Creativity was viewed with much mysticism centuries ago and a creative act is often thought of as being possible only through some divine intervention having full of inspiration (Rothenberg & Hausman, 1976). However, the psychoanalytic approach to the study of creativity espoused that creativity arises from the tension between one’s conscious reality and unconscious drives. In short, creative output is actually an avenue to express one’s unconscious need or wishes in a form acceptable to society. This unconscious need comes in many forms and varieties such as the need for power, fame, riches, honour or even love (Vernon, 1970). Creative inspiration needs to be wooed and than waited to dawn upon the individual, as it cannot be voluntarily summoned (Leavy, 2002). Bonnardel and Marmeche (2004) noted that external sources of inspiration do enhance creative ideation. Kris (1952) also stated that adaptive regression and elaboration occur during creative endeavours. Adaptive regression is the intrusion of unmodulated thoughts during consciousness and often occurs during acts of active problem solving. It often happens during sleep, daydreams, fantasies and intoxication. During phases of inspiration, an individual is also seen as being intoxicated and able to produce works of exceptional quality. Elaboration on the other hand is the process of transforming the raw idea through reality-oriented and ego-controlled thinking. The fine-line between one’s state of conscious reality and unconsciousness is where the true source of creativity lies (Kubie, 1958).

The state of inspiration is an embodiment or feeling of intense positive emotion, which is rare and seen as highly desirable (Councill, 1988). The state of an inspired individual is exhilarating and full of positiveness and is a moment in which the individual expands develops and grows. If this energy is tapped in the right manner, the inspired individual becomes much more perceptive to the surrounding and his thoughts. Councill (1988) and
Whitting (1985) reported that there are two crucial elements in establishing the right condition for creativity to take place. The first would be a sense of freedom within that is felt by the individual in pursuit of creative inspiration. The second would be constant support and positive external reinforcement for one’s creative efforts. Freedom within is crucial for spontaneity and genius to be exemplified. Freedom is one’s innate predisposition and it goes beyond education (Albert & Runco, 1999). Mattimore (1993) stated that talent is important but inspiration is crucial.

“...all creative individuals and inventors work extremely hard at their craft, maybe even to the point of obsession as they never can tell at what moment and under what circumstances, inspiration will arrive....”

(Mattimore, 1993)

Creators don’t sit idle waiting for inspiration to emerge but actively seek it out. There are three methods of doing so. Firstly, would be continuously asking all kinds of questions, no matter how far fetched they are or how absurd it might be. Secondly, would be to visualise or see answers or possible outcomes. Lastly, is to freely associate different concepts, no matter how remote the connections. These skills need to be honed and sharpened to perfect it and reach a high level of proficiency (Mattimore, 1993). Ragsdell (2001) stated that reflection is also a source of creative inspiration. Reflection could be on the dynamic relationships in the organisation, on the approaches and assessment being applied within the work setting as well on the creative methods employed and its resulting output.

When inspiration dawns upon an individual, a sense of great excitement, joy and arousal is experienced (Councill, 1988). The effect of arousal and attention on creative thinking has been examined via the experimental approach. It was found that creative individuals had a higher level of attention span compared to less highly creative persons. This could be attributed to their ability to move into the secondary process states at ease (Rothenberg, 1990, 1995; Eysenck, 1993). Arousal on the other hand is attributed to the broadening of one’s attention capacity that has been reported to play a significant role in creative thinking. This is apparently so during problem solving activities, where obvious ideas are initially generated and once exhausted, more remote or unique ideas starts to emerge. Individuals with a higher capacity for broader attention allows for more remote ideas to find associations and in turn more creative ideas. Arousal could take place through the use of inspiration.

Torrance (1978) noted that having the right attitude and staying responsive are equally important elements for creativity. He also said that the human intellect is divided into three sub-categories, which are termed the conscious, preconscious and unconscious. The conscious aspect of the mind is linked to logical and rationality as perceived in reality and involves the phases of preparation and verification. The preconscious mind is where the element of inspiration takes credence. This is where incubation and illumination takes place and occurs freely in states of abstraction, in sleep, in dreams and in writing and painting. It is where free association in terms of non-selected paths of thoughts takes place.
Staying within a state of duality or a synthesis of contradictory aptitudes can assist in reaching a state of creative inspiration (Jung, 1958; Councill, 1988). Mental relaxation and the constant practice of concentration and imagination could also be a source of inspirational attainment much sought after (Councill, 1988).

**Distinctive Creativity Endeavour (DCE) Model**

The proposed model to be used in the study is termed the Distinctive Creativity Endeavour (DCE) model. The DCE model of creative development takes after the Creative Problem Solving (CPS) model developed jointly by Osborn and Parnes in 1967. The further enhancement of the CPS into a more comprehensive and integrated model has important theoretical implications.

Although it has been widely reported of the negative impact pressure, stress and strain has on the psychological well-being of an individual, it has been reported that pressure does have a positive impact on the creativity of individuals (Belcher, 1975). The combination of pressure threshold realisation and creative inspiration in this study hopes to allay the current notion that it must be avoided at all cost. It is imperative that we learn to perform within the realm of reality, being pressurised and stressed and still be able to inspire one's creative potential and produce creatively at the desired level.

The first facet of the DCE model is termed realisation, which involves realising, and understanding the problem at hand and most importantly accepting the situation. Analysis encourages preparation and concentration by the participant to search for all available information. The third facet, pressure is based on the belief that pressure or stress can have a positive role in creative thinking development (Bowmann & Boone, 1998; Grossman & Wiseman, 1993). Based on this notion, the model incorporates the element of pressure on the participants in the program to understand and realise their threshold levels for pressure and creates the sense of urgency to produce and perform within set boundaries and limitations while still allowing psychological freedom and inspired to create. The expectation of the quality of outcome should also be given attention. This is all done in the hope of inducing them to seriously put on their creative thinking caps in solving ill-defined problems.

Inspiration refers to the key inspirational elements one often experiences. Inspiration is also reflected by the great findings as well as creativity by renowned individuals in the hope that the participants will be inspired, motivated, and energised to emulate them. This is similar to the sacred mantra of our society “Malaysia Boleh” where it propels the nation to extraordinary heights and achievement never thought possible before. The element of inspiration is also a new factor never before seen in a creativity model. Inspiration through visualisation and imagination is crucial as thinking in images helps provoke the preconscious mind during ideation. It is here that the mind forms new linkages with bits and pieces of information available in coming up with new ideas.

“…Imagination is more important than knowledge, for knowledge is limited, while imagination embraces the entire world…” Albert Einstein
Incubation is the phase where participants will be made to focus their attention away from the issue at hand as a form of rejuvenating the mind before the crucial phase of illumination takes place. The idea-finding stage is by far the most painful, as the individual is required to generate as many new ideas as possible with some being extraordinary and creative. However, with the use of incubation and illumination, it increases the probability of coming out with highly creative ideas and solutions, than merely waiting for an idea to emerge. This works more as a form of inducing the preconscious to make linkages, redefinition and combination of existing information in producing creative ideas.

Synthesise is where the development of ideas are made together with putting the pieces together and finally building momentum. Once this is completed it is then time to put the creative plan into motion. This phase is termed the action phase. Finally, there needs to be an evaluative phase to determine the effectiveness of the plan. If it is found not to be effective, than there is a need to return back to the drawing board at the realisation stage to once again evaluate the problem. However, if the plan is successful, the final phase would then be the conviction phase where there needs to be a strong commitment towards seeing the idea through.

As mentioned above, the DCE model proposes a modification to the CPS model via the inclusion of the two additional stages, which are the pressure threshold realisation and the inspiration phases. These two phases shall be included between the problem-finding and idea-finding stages of the CPS model. As such, the proposed DCE model contains eight distinctive stages and is deemed as follows:

I. objective-finding
II. fact-finding
III. problem-finding
IV. pressure stage (Pressure Threshold Realisation)
V. creative inspiration stage (Incubation & Illumination)
VI. idea-finding
VII. solution-finding
VIII. acceptance-finding

Stages I to III deals primarily with the issue of understanding and determining the exact challenge or problem to focus on. Stage IV concerns realising the constrains and limitations that are evident in the pursuit of the problem solving endeavour. Stage V involves taking the mind momentarily off the current problem and focusing on other tasks while waiting for the preconscious to produce outstanding ideas never thought off before. Actual creativity much occurs within this stage. Stage VI involves generating as many potential solutions as possible exhausting all conscious and possible solutions. The final stage looks into the action or solution implementation, while verifying its effectiveness thereafter.

**METHODOLOGY**

This research was designed and structured to investigate the effect of pressure threshold realisation and creative inspiration on individuals. In the present study, the sample consisted of executives and managers from various multinational organisations in Malaysia. The
statistical analysis used in the study included a descriptive analysis of the sample of study, exploratory data analysis (EDA) on all groups, a paired sample t-test, eta-squared and multivariate analysis of variance (MANOVA) to attain the objectives of the overall research undertaken. This chapter states the objectives of the study. The research design being experimental in nature is clearly spelled out while other sections include description of the samples used and sample sizes, instrumentation, data collection, testing and scoring procedures, and analysis together with a summary.

The research study undertaken has two main objectives:-

a) to further enhance upon Osborn-Parnes Creative Problem Solving (CPS) approach for creative thinking taking into account two new elements namely pressure threshold realisation and creative inspiration

b) to determine the effectiveness of the proposed elements to the enhanced Osborn-Parnes Creative Problem Solving (CPS) approach via an experimental approach

The Sample

For the study, six groups were chosen to undergo various forms of the creative problem-solving program. Groups chosen had to specifically consist of minimum 15 participants to render the program effective. However, group sizes ranged from 15 to 20 participants. All participants were gathered from various multinational corporations in Malaysia and were at least employed in either an executive or managerial position. They all had at least a college diploma and were fluent in English as it was the mode of instruction as well as the training materials. A total of 5 multinational organisations took part in the research.

It took almost a year to secure all groups and complete the whole experiment as logistics needed to be given due consideration. Participants were informed of the purpose of the experiments prior to their involvement and willingly participated.

Research Design

The study undertaken is built on an experimental framework comprising various variations of a creative training program. Subjects were required to undergo a creative ability test prior to the start of the program and another at the end of the program to ascertain the difference upon being exposed to certain creative thinking development principles of a creative program. The objective was to prove whether the inclusion of a pressure threshold realisation phase and a creative inspiration phase results in higher creativity as compared to the standard creative problem solving approach.

Solomon Four-Group Experimental Design

The experimental design chosen for the research was based on a modified version of the Solomon Four-Group Design. In the Solomon Four-Group Design, the main effects of testing and the interaction of testing and program exposure are determined. The symbols used to explain the experimental design are given as X to represent the exposure of a group to an
experimental variable or event where the effects of it are to be measured. O refers to some process of observation or measurement and in this research perspective is a pretest and posttest.

**TABLE 1: LIST OF EXPERIMENTAL PROGRAMS**

<table>
<thead>
<tr>
<th>Program</th>
<th>Pretest</th>
<th>Program</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCE</td>
<td>O₁</td>
<td>X&lt;sub&gt;DCE&lt;/sub&gt;</td>
<td>O₂</td>
</tr>
<tr>
<td>CPS</td>
<td>O₁</td>
<td>X&lt;sub&gt;CPS&lt;/sub&gt;</td>
<td>O₂</td>
</tr>
<tr>
<td>CPSI</td>
<td>O₁</td>
<td>X&lt;sub&gt;CPSI&lt;/sub&gt;</td>
<td>O₂</td>
</tr>
<tr>
<td>CPSP</td>
<td>O₁</td>
<td>X&lt;sub&gt;CPSP&lt;/sub&gt;</td>
<td>O₂</td>
</tr>
<tr>
<td>PLA</td>
<td>O₁</td>
<td>X&lt;sub&gt;PLA&lt;/sub&gt;</td>
<td>O₂</td>
</tr>
</tbody>
</table>

O₁=pretest,  O₂=posttest

Note: Xs and Os in a given row are applied to the same specific individuals

DCE (Distinctive Creativity Endeavour), CPS (Creative Problem Solving)
CPSI (Creative Problem Solving + Inspiration)
CPSP (Creative Problem Solving + Pressure Threshold Realisation), PLA (Placebo)

In total there were five different training programs, which were all modifications to the Osborn-Parnes Creative Problem Solving (CPS) model. The first program that was the original creative problem solving without any modifications was termed the CPS program. The second was called the CPSI program as an additional section was added to the CPS program, which was the creative inspiration phase. The third program was the CPSP and it also consists of a modification to the CPS program where an inclusion by way of a pressure threshold realisation phase was made. The Distinctive Creativity Endeavour model or better known as the DCE program consisted of the CPS program with an additional pressure threshold realisation phase and a creative inspiration phase. As for the control group, termed the Placebo (PLA), the program administered was a program on labour laws and regulation with emphasis on sexual exploitation.

A PILOT program was also included in the initial stage of the whole research prior to the commencement of the actual study as a means of ensuring the smoothness of delivery and administration before the actual study was carried out. The PILOT program was based on the principles set forth in the DCE approach and as such is similar to the experience of the DCE program.

**Statistical Analysis**

The data obtained upon scoring of the Figural Forms were analysed using the Statistical Programme for Social Sciences (SPSS) software package 10.01. The type of data analysis used depended on the measurement scales. There were generally two types of measurement scales in the study. The first was the nominal scales, which were for the independent variables such as age and gender. The ratio scales for the dependent variables include all the creative thinking scores from the norm-referenced measures as well as the criterion-
referenced measures. The analysis is based on the proposed research questions with the usage of SPSS in terms of providing both the descriptive statistics and the inferential statistics.

For the research study, the statistical analysis used was the Paired Sample t-test in determining the Creativity Index scores, and National Percentile Creativity Index. The Creativity Index score is obtained by adding the average standard scores (ASS) of all the norm-referenced measures with the scores on the checklist of creative strengths. It serves as the overall indicator of creative potential. The National Percentile Ranks obtained for each of the norms-referenced measures and Creativity Index score and is a comparison of one’s standard scores with that of other individuals at similar levels. The Multivariate Analysis of Variance (MANOVA) was used to compare the various creativity scores obtained to determine whether the mean difference between the various programs as well as the factors on the combination of dependent variable would have likely to have occurred by chance.

RESULTS AND DISCUSSION

This section contains sections on the significance of the creativity programs through the Multivariate Analysis of Variance (MANOVA). The profile of the creativity performance is also presented through analysis of the Creativity Index (CI) as well as the Average Standard Score (ASS). Results of the paired sample t-test on various creativity programs are presented for the Creativity Index (CI) and National Percentile Creativity Index (NPCI). They are analysed based on the Average Standard Score (ASS).

Creative Performance Comparison

The Creative Performance Comparison analyses whether there exist a significant difference between the pre and posttests results for the various creativity programs (DCE, CPS, CPSI, CPSP, PLA) on the Creativity Index (CI) and National Percentile Creativity Index (NPCI).

Creativity Index (CI) Results

The Creativity Index (CI) standard score is a normalised standard score reflecting the overall creative performance on the TTCT and reported on a scale of 100 with a standard deviation of 20.

DCE Program
Table 2 shows the paired sample t-test analysis carried out to evaluate the impact of exposure to various creative problem solving programs on the CI, while Figure 4 depicts it in graphical form. The DCE program showed a significant increase in Creativity Index score from the pretest ($M_1=68.69$, $SD_1=16.59$) to posttest ($M_2=101.60$, $SD_2=15.41$), $t_{20}=-8.37$, $p=0.005$. The eta-squared ($\eta^2$) statistic (0.7867) indicated a very large effect size. The DCE program has the largest mean difference of 32.91 (47.91%) depicting an improvement of approximately 50% from the exposure to the principles of the DCE model. The mean difference is statistically significant as the significance level of 0.005 is below the alpha level of 0.05 and in turn the null hypotheses (Ho) is rejected and the alternative accepted. As such, there is a significant difference between the pretest score of the TTCT and the posttest score upon implementation of the DCE model.

The DCE program advocates having a very clear goal state, moving from the initial state gradually via various sub-goals where all possible actions fall within the problem space as espoused by Newell and Simon (1999). As such, problem solving is deemed as finding the correct sequence of actions moving from start to finish within the problem space (Newell, 1972, Simon, 1999, Sternberg, 1999). The use of sublevel programs such as algorithms which are sequence of operations that when constantly applied guarantees solution to problems (Hunt, 1995, Sternberg, 2000) or heuristics, mental shortcuts used in problem solving such as the use of intuition, informal and speculative strategies (Holyoak, 1990, Karf, 1999, Fishoff, 1999, Sternberg, 2000). The mental callisthenics are crucial in preparing the mind for creative exploration and insight during the incubation phase (Dominouski & Jenrick, 1973, Davidson & Sternberg, 1984; Smith & Blankenship, 1984, 1989, Sternberg & Davidson, 1995), when the mind and soul is subjected to intense freedom to creatively ideate through creative inspiration and performing at optimal levels through the principle of pressure threshold realisation.

### TABLE 2: CREATIVITY INDEX (CI) SCORES

<table>
<thead>
<tr>
<th>Program</th>
<th>$M_1$</th>
<th>$SD_1$</th>
<th>$M_2$</th>
<th>$SD_2$</th>
<th>$Y$</th>
<th>$t$</th>
<th>$p$</th>
<th>%</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCE</td>
<td>68.69</td>
<td>16.59</td>
<td>101.60</td>
<td>15.41</td>
<td>32.91</td>
<td>-8.37</td>
<td>0.005</td>
<td>47.91</td>
<td>0.7867</td>
</tr>
<tr>
<td>CPS</td>
<td>63.55</td>
<td>13.07</td>
<td>67.96</td>
<td>8.16</td>
<td>4.41</td>
<td>-2.01</td>
<td>0.063</td>
<td>6.94</td>
<td>0.2117</td>
</tr>
<tr>
<td>CPSI</td>
<td>67.46</td>
<td>24.15</td>
<td>77.87</td>
<td>18.26</td>
<td>10.41</td>
<td>-4.92</td>
<td>0.005</td>
<td>15.43</td>
<td>0.5869</td>
</tr>
<tr>
<td>CPSP</td>
<td>71.34</td>
<td>26.89</td>
<td>82.34</td>
<td>20.99</td>
<td>11.00</td>
<td>-4.23</td>
<td>0.001</td>
<td>15.42</td>
<td>0.5277</td>
</tr>
<tr>
<td>PLA</td>
<td>75.18</td>
<td>22.46</td>
<td>66.80</td>
<td>20.32</td>
<td>8.38</td>
<td>1.79</td>
<td>0.094</td>
<td>-11.15</td>
<td>0.1760</td>
</tr>
</tbody>
</table>

DCE (Distinctive Creativity Endeavour), CPS (Creative Problem Solving), CPSI (Creative Problem Solving + Inspiration), CPSP (Creative Problem Solving + Pressure Threshold Realisation), PLA (Placebo)

$M_1$ = Pretest mean score  
$SD_1$ = pretest standard deviation  
$M_2$ = Posttest mean score  
$SD_2$ = posttest standard deviation  
$y$ = mean difference ($M_2 - M_1$)
FIGURE 3: CREATIVITY INDEX SCORES (CI)

CPS Program

The Creativity Index score for the CPS program shows an increase from the pretest ($M_1=63.55$, $SD_1=13.07$) to posttest ($M_2=67.96$, $SD_2=8.16$), $t_{(16)}=-2.01$, $p=0.063$. The eta-squared ($\eta^2$) statistic (0.2117) indicates a large effect size. The mean difference measured was only 4.41 (6.94%) between the pretest and posttest. The significance level of 0.063 is higher than the alpha level of 0.05 and as such we fail to reject the null hypotheses (Ho) and conclude that the difference between the pre and posttests scores is deemed non-significant. This goes to show that in comparison between both the DCE and CPS approaches to creative development, the DCE clearly surpasses the CPS in being able to develop creativity.

CPSI and CPSP Program

For the CPSI program, the Creativity Index scores for the pretest ($M_1=67.46$, $SD_1=24.15$) to posttest ($M_2=77.87$, $SD_2=18.27$), $t_{(18)}=-4.915$, $p=0.005$. The eta-squared statistic ($\eta^2=0.5869$) indicated a very large effect size. The mean difference between pre and posttest was 10.41 or a percentage increase of 15.43. If compared to the CPS program, there is almost a 50% increase in creativity if the element of inspiration is included as part of the CPS program. This goes to show that individuals need some form of inspiration in order to tap deep within the realms of their creative preconscious and the CPSI provides them with the necessary tools. The CPSP program showed CI scores from the pretest ($M_1=71.34$, $SD_1=26.87$) to posttest ($M_2=82.34$, $SD_2=20.99$), $t_{(15)}=-4.23$, $p=0.001$, with an eta-squared statistic of ($\eta^2=0.5277$) indicating a very large effect between the CPSP program and the CI score. The mean difference between the pre and posttest was 15.42%. As such, it proves that by having an understanding of one’s own pressure threshold and knowing how to utilise it positively at the optimum level, one is than able to remain in control at all times under pressure yet able to ideate creatively.
For both the CPSI and CPSP programs, the mean difference showed a significance level of 0.005 and 0.001 respectively, below the alpha level of 0.05 and as such reject the null hypotheses. It is then concluded that the mean difference is significant unlike that observed for the CPS program. The percentage increase on creativity scores from the pre to posttest for the CPSI and CPSP in total is approximately 30%, which is remarkably higher than the CPS program but if compared to the DCE program it was almost 48%. This goes to show that having both the pressure threshold realisation phase together with the creative inspiration phase does have a cumulative effect as if considered separately. Thus, it is our conclusive evidence that both these elements need to be combined together for optimum results as demonstrated by the DCE model. The CPS program also produced an eta-squared ($\eta^2$) statistic, which was a mark below that achieved by the DCE, CPSI and CPSP programs respectively and show that there is a significant influence these programs have on the participants CI scores as compared to the CPS program. Once again, the combined effect of having both the pressure threshold realisation and the inspiration phases together in a single program produces enhanced creativity as when carried out separately within the creative problem solving program.

**PLA Program**

The PLA program being exposed to a totally uncreative training program was used as the control group. Subjects were not exposed to any creative aspect in the program as the program involved lots of memorisation, policies and regulations. The pretest creativity index score of ($M_1=75.18$, $SD_1=22.46$) to a posttest score of ($M_2=66.80$, $SD_2=20.32$), $t_{17}=1.790$, $p=0.094$ revealed a drastic drop in creativity as there was a reduction of 11.15% in the posttest compared to the pretest and we conclude that exposure to uncreative approaches that involves lots of memorisation and little exploration, experimentation and creative ideation results in reduced creativity. Thus, it is crucial for people to expose themselves to creative approaches in handling problems as opposed to rigid and uncreative ways.

**Discussion on Creative Performance (CI)**

Being trained and guided through a creative thinking development program that includes pressure threshold realisation as an important factor besides creative inspiration as a mode of dwelling within the deep confinement of the unconscious with a clear objective in mind is proven to be able to churn out the intrinsic creative ability of individuals. Having a system of defining the proper problem or challenge to focus on before embarking on dissecting it in crystallising the issue at hand, defining all the relevant and possible alternatives and approaches to problem solving and finally selecting a specific approach are all crucial aspects in creative problem solving. However, knowing how to ideate creatively under pressure and unlocking the creative inspirational points within each individual are aspects that are deemed highly important if we are to produce creatively under pressure. Working long hours on specific tasks in search for a creative breakthrough is a norm in many facets of working life. But to be able to maintain the intensity for long periods under tremendous pressure to produce need just much more than proper problem definition, idea finding, solution as well as acceptance finding. One needs to acquire effective methods of capitalising on one’s pressure
threshold and inspiring the creative realms within the preconscious in order to produce creative breakthroughs.

DCE Program

The precept of the DCE model is unlike any other problem solving or creative problem solving model as it encompass the factor of realising and acknowledging the pressure experienced and able to harness creative ideation at this pressure threshold levels within each individual. As have been reported, it is never the pressure by itself but the reaction towards it that determines the creative performance (Carson & Runco, 1999 & Anspaugh et al., 2000). Pressure supplies the creative energy for self-realisation as it awakens the unlimited creative potential (Sensyshyn, 1999). However, the pressure experienced need to be at optimal threshold levels as it encourages expansion and elaboration of ideas, higher number of strategy planning acts for idea generation and in turn demonstrate higher creativity (Kelly & Karau, 1993). It was reported that with extremely high time pressure, the rate of one’s performance might increase but the overall output quality will be affected as people tend to resort to oversimplification of problem solving strategies and resort to less systematic information processing (Kelly & Karau, 1993). Owing to that, individuals need to seek out the pressure threshold levels and perform at that optimal level to produce their best at all times.

Through the DCE program, subjects are made to firstly understand and determine the problems faced and set one clear objective or goal to be achieved. This takes place through the stages of objective finding right through to problem finding. Once the goal is clearly set after much research, information gathering and deliberation, it is than necessary to realise for themselves through analyses and deep contemplation of all the available resources as well as limitations that might exist in search for that one breakthrough find which is not only novel but valuable as well. This often results in pressure to perform under those dire circumstances and if left unchecked one’s performance will be affected and the much sort after creative breakthrough might be illusive. Often, the working conditions itself is a source of pressure as was reported by Saunders et al. (1995) through factors such as role ambiguity, role conflict, quantitative and qualitative overload, people responsibility and job scope.

Through the DCE program, subjects are not only taught to realise the pressure and acknowledge it, but also taught resilience adaptation, which is learning to cope with it at optimum threshold levels and still perform and experience creative growth, which is the essence of the whole process. This is possible via the inspirational element or approach of the DCE model that assists individuals in knowing their conscious and inspiration points which if tapped is able to harness creative ideation consistently by allowing themselves to tap into the preconscious state where creativity dwells. Leavy (2002) revealed that creative inspiration need to be wooed and waited to dawn upon, as it cannot the summoned voluntarily. But to just wait for illumination to occur during the incubation stage would be detrimental especially when faced with external and maybe internal work pressure and it is better to get individuals working at their optimal pressure capacity and inspire them, fixing them into a state of being creatively inspired to increase the probability of unique ideation than to await it and leaving it to chance. The DCE program is based on the belief that people can be anchored to produce
creatively if they are able to consistently get into creatively inspired states despite the pressure faced from the surrounding and it increases the probability of a creative breakthrough as was used by many imminent creatives since time immemorial. To perceive that creative ideation is only possible in times of calm without any pressure or stress remains a fallacy that is unrealistic in this high paced and competitive world we live in today.

An observation made during the training where inspiration was given precedence, subjects were observed to be more able to produce extraordinary ideas (illumination) once they were within their creatively inspired states. This was evident when subjects moved into the incubation phase and were much more fruitful coming into this phase after being creatively inspired as they were more able to make unusual connections within their preconscious. Csikszentmihalyi (1996) supports this claim when he noted that during incubation ideas tend to mix around below the threshold of consciousness and unusual connections are likely to be made. He further noted that conscious problem solving most often process information in a linear and logical fashion while if they were left to their own, ideas seem to be able to gel in unexpected combinations and unique ideas flourish.

It is believed that creative inspirational states can be achieved irrespective of the environment or social setting one finds him or her in. It is just a matter of accepting and confirming the surroundings to a particular individualistic pattern that echoes the rhythm of their thoughts and habits of action. The crucial ingredient to creative inspiration lies within the conscious as well as subconscious of an individual and not so much the external factors as it has never been proven that a delightful setting induces creativity (Csikszentmihalyi, 1996). As long as the individual can bring meaning to whatever situation one find himself in where one can virtually shut off psychologically from the outside world and concentrate on pursuing creative works while feeling inspired to ideate in a novel and valuable manner; creativity shall flourish. Having a prepared mindset with a deeply felt problem that awaits a creative solution together with having the necessary skills to answer it is more important to creativity than a conducive environment, as even the most appropriate surrounding for creative ideation would be pointless if the mindset is ill-prepared in the very beginning (Csikszentmihalyi, 1996).

Renowned creators and ideators such as Johann Sebastian Bach, Albert Einstein, Beethoven and Marcel Proust produced astoundingly creative works within very humble and uninspiring settings. Einstein for instance produced his masterpiece by way of the Theory of Relativity on a kitchen table in his modest lodgings, though it was believed that he might have been inspired some time earlier in his life by a sublime sight or experience that he capitalised on throughout his life lending inspiration when so needed. As such, a particular experience of awe for any individual could be the catalyst for a lifetime of creative production, provided the individual knows how to utilise it at will and this is a crucial element of the DCE approach, emphasised via the anchoring techniques.

However, what really matters is the ability of all individuals to be able to perform at optimal pressure thresholds while adapting and being in harmony with the surroundings, schedules as well as activities and allow one’s consciousness to be in sync with the environment. When situation and time are in tune, the possibility of experiencing one’s unique existence and
relationship with the cosmos takes form and thereon original thoughts and actions flow with greater ease (Csikszentmihalyi, 1996).

**CPSP Program**

The CPSP program advocated the use of allowing for a longer initial time period in the state of pressure threshold realisation as this allows for a slightly longer time for one to access their creative abilities. This technique is often used by hardy individuals well known for their creative output (Bloyd, 2003). King and Pope (1999) termed this the “transitional space” where creatives access it for a freedom to exist and still maintain awareness of the external environment constrains and still experience external and internal reality. Hardy people use some form of transformational coping to make stressful situations more acceptable and palatable as was reported by Orr and Westman (1990). The transformational coping methods are by way of imagination, stimulation, more effective mobilisation of resources and ways in overcoming stressful situations (Maddi & Kobasa, 1984, Rhodewalt & Zone, 1989, Wiebe, 1991). Council (1988) and Whitting (1987) set down two conditions for creativity to take place, which are the sense of freedom within and constant support and external reinforcement, which is believed to be criteria necessary for creative endeavours. The internal psychological freedom one experienced is also advocated by Rogers (1962) and Yong (1994). The CPSP program through the element of pressure threshold realisation has taken these aspects into consideration and participants are made to experience them during this stage.

The importance of knowing and experiencing one’s pressure threshold level is based on the belief that optimal work output is directly related to optimal pressure experienced (VanGundy, 1984, 1987). And performing at the optimal pressure level does provide freedom for creative exploration provided one rely upon resilience adaptation that is knowing one’s pressure threshold levels and adapting to the increase in external and internal pressure and still able to ideate creatively (Anspaugh et al., 2000). Optimal pressure also allows the mind to stay focus and in turn avoid procrastination (Heaney, 2001). Amabile (1983) stated that the three aspects crucial for creativity are having knowledge and capabilities pertaining to a field of specialisation, internally motivated and having the skills for creative endeavour which encompass the ability to handle ambiguities during problem solving and to maintain intense focus when faced with a problem whilst still being psychological under control and free to ideate despite those circumstances.

**CPSI Program**

The CPSI program is highly effective in assisting individuals to access the freedom within where the creative process takes place within the preconscious while being subjected to external pressure. Participants acknowledge a sudden surge in terms of creative production in this inspired state where they seem to experience creative processes taking place at excruciating pace such as combining and condensing information or ideas and seeking relationship from these string of processes which give meaning to their output in solving a
particular challenge or problem at hand. Kubie (1958) revealed that it is in this inspired preconscious state where creative will experience a sudden freedom within to ideate creatively. Barchilla (1961) supports this notion and stated that it is in this preconscious state where hyper activity is experienced where the recombination and elimination of information and ideas take precedence over any logical thought processes producing what is known as creative and innovative ideation. Rothenberg (1991) and Eysneck (1993) stated that it is during this higher attention span when one moves into the secondary process states at ease and is where creative work actually takes place. This secondary state is also referred to as the preconscious state and is where incubation and illumination occur.

The CPSI program advocates the use of anchoring techniques to bring individuals back to their past and relive those emotions and experiences while being highly focus and intense when focusing on solving a particular problem at hand and feeling the gush of adrenalin in solving it in the most creative manner. It is then when individuals feel they were experiencing peak performance in their own right despite the enormous pressure and anxiety felt and they still managed to triumph despite those consequences. By way of determining the sub modalities of how the mind codifies those particular situations, the individual can unlock those states at will by moving back in time to relive them as and when needed. The CPSI program through the creative inspiration stage seem to be very effective in harnessing peak creative performance and more so during times of pressure through the DCE program.

CONCLUSIONS

The Creativity Index (CI) scores measured based on the TTCT divergent thinking test battery showed that among all the various programs, the DCE program produced the highest percentage increase in creativity scores from the pre-test to the post-test. The DCE program’s increase was approximately 48% while that for CPS was only about 7%. The CPSI and CPSP programs showed similar improvements at approximately 15% each. This goes to show that the inclusion of the pressure threshold realisation as well as the creative inspiration element does have a positive effect on one’s creative development compared to a pure creative problem solving (CPS) program. If the percentage increase for the CPSI (15%) having the additional creative inspiration factored into the program and the CPSP (15%) program with the presence of the pressure threshold realisation as part of its program and are subsequently combined, it amounts to 30%, which is still a mark lower compared to that achieved by the DCE (48%) program, which have both elements together. This could be due to the fact that a cumulative effect is evident when both the elements are present within the same program, as it seems to further enhance one’s creative ability as compared to a standard creative problem solving approach or having only one element present.

The eta-squared values for all the programs registered values of at least 0.20 indicating a strong effect the various creativity programs have on the participant’s creative ability development. The DCE program shows the highest effect at 0.7867 followed by the CPSI (0.5869) and CPSP (0.5277). The CPS programs eta-squared was at 0.2117. This is indicative of the direct influence the programs actually have on the participants creative thinking potential having undergone the program and this augurs well for the overall research.
REFERENCES


LEADING EDUCATION CHANGE

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ABSTRACT

For the purpose of this paper, ‘education change’ is defined as ‘change in an educational institution’.

This paper is my means of sharing with the reader my ongoing experience in leading change in an educational institution, namely, University of Malaya (UM).

I was appointed in May 2006 to occupy just about the most prominent ‘hot seat’ in Malaysian academia, that is, the Vice-Chancellorship of University of Malaya. I describe it as such because of the setbacks in public perception and severe criticisms that the University suffered in the period preceding my appointment.

The decline, real and apparent, of the country’s oldest and premier public university was courting much controversy and consternation among its stakeholders. The brief that I received on my appointment was clear and straightforward: improve the standing of the University, domestically and overseas.

BACKGROUND PREPARATION ON ASSUMPTION OF LEADERSHIP ROLE

An analysis of organisational strengths, weaknesses, opportunities and threats was conducted to understand and appreciate where the University is in terms of its overall quality, where it should go, what is needed for it to go where it wants to go, what resources we already have and what we do not have but need in order to go where we want to go.

I was appointed during the ‘bad times’, so to speak, so I will start with the weaknesses that were observed of the University at the point I assumed the VC post.
Weaknesses

1. **Command of English**

This has been found to be poor among certain sections of staff. Apart from affecting efforts in preparing students for the job market, it may hamper the university’s moves to gain a higher international profile.

2. **Research-related and ICT skills**

Some staff members had insufficient research-related skills or were not diligent enough in keeping up with developments in research methodology. The decline in performance in publications then was partly if not wholly attributable to this. Some staff members were and are less than satisfactory in their ICT skills.

3. **Income from non-governmental sources**

Only 7% of UM’s operating expenditure is paid for by non-fees and non-governmental sources. With the global trend of decreasing government funds going into public institutions of higher learning, this dependency may hinder the university’s efforts to excel in its chosen fields.

4. **Maintenance of infrastructure**

With a campus which is almost 50 years old, inevitably parts of the infrastructure are ageing and in need of repair and refurbishment in order to support higher current usage. At present, annual repairs and maintenance expenditure amounts to about RM65mil and is expected to increase in future years. Budgetary constraints may force prioritisation of maintenance works and, thus, some sections of the university’s infrastructure may appear to be lacking in maintenance.

5. **Manpower**

Some parts of the university organisation suffer high staff turnovers and as a result are sometimes understaffed. Examples include the medical and dentistry faculties. This is attributable to uncompetitive salaries being offered compared to the private sector. This is a problem that may be overcome if the University is given more autonomy over remuneration issues.
6. **Financial support from alumni**

This has been much less than what had been hoped for. The practice of alumni being financial benefactors to their graduating universities is yet to be ingrained in Malaysian culture. However, as noted by a prominent American academic on the matter of gifts and endowments to universities, “Success does not necessarily follow money but money by necessity follows success”. Put simply, people bet on winners. When UM is successful in boosting its standing in world scholarship, alumni will be more motivated to be known as benefactors of a world-class institution.

7. **Students’ international outlook**

Generally, students’ were found to be more inward than international in their outlook. This could be due to many factors including poor command of English language, and lack of exposure.

**Strengths**

1. **The university management**

The Board of Directors of the University as well as its top management consist of very experienced and capable leaders. Members of the board have diverse and rich background and experience and are immensely qualified to provide guidance to the University’s top management. Furthermore, they were and are totally committed to the improvement of the University.

2. **Academic staff**

The real “brains” of the institution are highly capable, very professional in outlook and committed to measures which will enhance its standing in world scholarship. A total of 801 are in possession of PhD degrees (or equivalent) and almost 900 have more than 10 years each of research experience. Many of them graduated from very prestigious internationally renowned universities such as Harvard, Oxford and Cambridge. The many research awards won by UM staff in any given year is evidence of their strong research capabilities.

3. **Brand name**

The cache of the UM brand name still rings true. As the nation’s very first university, the UM name is already well established and known locally and internationally. This strength enables UM to be highly selective in admitting students and staff. Collaborative relationships and linkages at the institutional and individual levels with overseas universities too are facilitated by the prominence of the UM name.
4. **Location**

UM’s location in KL gives it a very strong competitive edge compared to other universities in Malaysia. It helps to attract the brightest students locally and from overseas. It is also a very strong advantage in terms of attracting top international scholars who prefer to be located in the capital city of Malaysia when spending their time in the country. In addition, being located in KL is extremely valuable in terms of facilitating high level academic activities such as organizing high level international academic conferences.

5. **Staff accommodation**

The University has plenty of accommodation for staff. Renovations to improve the comfort and amenities these accommodation offers will enable UM to attract quality staff, locally and from overseas.

6. **Alumni base**

A common cause naturally among alumni is the general advancement of their alma mater in all spheres. The UM alumni base is large, extending to Singapore by virtue of its history, and influential. They offer an invaluable and fabulous support system, one which the university intends to engage in as many of its ventures as possible.

7. **Libraries and departmental resource rooms**

The University’s Main Library has over a million titles, is very well equipped and offers access to a wide range of electronic databases inside and outside Malaysia. In addition there are eleven branch libraries situated at the various academies and faculties. Also, there are the resource rooms of departments within faculties which are well stocked with material for research and teaching. The staff members of the library are highly competent and up-to-date with the latest technology.

8. **Residential colleges**

UM has thirteen residential colleges offering accommodation for up to 12,000 students which is about 65% of undergraduates. Few other public universities match this level of student accommodation and this is another factor that attracts student applications to UM.

**Opportunities**

1. **Government’s concern for UM**
There is discernable concern on the part of the government for UM’s standing, domestically and internationally. This perhaps is due the perception that UM, being the most well-known university in the country is reflective of the nation’s educational attainment. Therefore, any decline in UM’s position in international rankings will have a negative impact on society’s perception of the government in general and the Ministry of Higher Education in particular and vice-versa. The government’s concern for UM is thereby understandable even though it imposes a heavy burden on the University. However, UM has decided to view the matter in a more positive way and thereby interpret that concern to be one that is sympathetic and supportive of all its plans to improve.

2. Malaysia as an education hub

The government is desirous of making the country an alternative educational centre for students from Africa, Middle East, South and East Asia. This presents an opportunity for UM in internationalisation efforts relating to its student population, academic staff and research links. UM’s location in KL and the fact that it is well-known to the international community present a unique opportunity for the University to spearhead the country’s effort to inform the world that the we have a very high quality higher education sector comparable to those in the developed world.

Threats

1. Times Higher Education Supplement (THES) ranking

The uncertainty in the outcome of annual rankings and the even greater uncertainty of how stakeholders would respond to them can be deemed a threat insofar that it detracts management’s attention from improvement plans, much of which will bear results over a longer term than what stakeholders expect. The only meaningful way that the University can respond to this threat is to create a real improvement in its academic performance, especially in research and publication. Universities which are genuinely superior in terms of their academic quality will sooner or later appear in the upper positions of the THES list, notwithstanding the questionable criteria used by THES in defining ‘academic quality’.

2. Target for critics

This is the ‘other side of the coin’ to the opportunities afforded by being perceived as the country’s premier university. Prominence brings with it the ease of being a target for public criticisms, both fair and unfair. Moreover, a huge expectation is placed on it, even though in terms of financial resources provided, such an expectation of the University arguably is unwarranted. It begs the question: is the differential in expectation level between UM and other public universities in the country reflective of the differences in financial resources?
3. **Competition from other local public and private universities**

Other local universities in both the public and private sectors are also earnestly trying to improve their standings. In one respect, this is good for the country’s higher education sector. Healthy competition in most cases will produce improved performance from the players involved in the competition. However, the improvement can only take place if the players are able to obtain increased financial resources to generate the improvement in performance. In situations where financial resources remain static whereas the number of institutions competing for those resources increased dramatically, then we can have a situation where the players may resort to actions which are dysfunctional both for the sector and the individual players. For example, UM in its bid to increase financial resources to fund research activities may be forced to boost its enrolment and reduce admission standards. This happened to Australian universities and there is no reason it may not happen to Malaysian universities.

4. **Private sector remuneration**

This is well known to be more attractive in the private sector, especially in the professions of medicine, dentistry, law, accountancy and engineering. Attracting and retaining staff in those and other fields have been and will continue to be a challenge.

5. **UM’s reputation for being `academically demanding’**

Based on information provided by past and previous students, many UM programs are perceived to be more academically demanding compared to those offered by other universities. Whether this perception genuinely reflects the reality is arguable. Nevertheless, anecdotal evidence has shown that this reputation may have discouraged potentially good Malaysian students from applying to enrol. The fact that Malaysian universities’ admission process at the undergraduate level is centralised reinforces this possibility further that risk-averse but good students would prefer to apply to universities perceived to be less competitive so as to secure their enrolment. A de-centralised university application process may mitigate this problem.

6. **Weak command of English among school leavers**

It is common knowledge that the standard of English proficiency has declined among school leavers. Even though the government is aware of this and has taken corrective measures, the result of improvement efforts will not be evident in the next few years. This presents a dilemma for the University management. With English being the default international lingua franca in almost all spheres, the obvious remedy is to have more academic programs conducted in English. But this meets the resistance of those whose command of the language is weak and also may discourage bright-but-weak-in-English type of students from applying for admission. This problem can only be effectively overcome if the right policies are instituted by the Ministry of Education vis-à-vis English training at primary and secondary school levels.
Formation of Strategic Planning Steering Committee

Appraising the background and prevailing situation within and outside the University yielded some ideas and pointers on what strategic steps ought to be undertaken to improve UM’s performance as a public university.

A Strategic Planning Steering Committee was formed and tasked with the formulation and refinement of a strategic plan. Chaired by me, its members consist of UM’s top management and selected faculty deans. Its secretariat is the Strategic Planning and Development Unit.

Priority one was to introduce and assimilate the idea of “Change” to the whole university community and that “Business as Usual” will do nothing to boost performance. A cultural change within the University was deemed a necessity.

The steering committee was thus tasked with three items which engender organisational culture change and transformation:

1. Revisiting the University’s mission and vision statements.
2. Formulating a set of core values.
3. Drawing up a strategy map and identifying Key Success Factors and Key Performance Indicators (KPIs).

1) UM’s mission and vision statements

The committee decided that a revision of the statements was necessary in view of the greater emphasis to be placed on research and the international arena. Those statements are to be the basis and driving force of a new culture. Recognizing that staff and students are stakeholders and to encourage their ‘buy-in’, their involvement was invited right from the beginning of the revision process. Suggestion forms were sent out to everyone asking for ideas and proposals on what the new statements should be.

The committee deliberated over the suggestions received and refined them into a final draft which was presented to the Board of Directors, another group of stakeholders, for their review and approval. In effect, the drafting process of the mission and vision statements involved every level of the university organisation, adopting both the ‘top-down’ and ‘bottom-up’ approaches in order to get everyone on board.
The University of Malaya’s new mission statement is:

**To advance knowledge and learning through quality research and education for the nation and for humanity**

And new vision statement is:

**To be an internationally renowned institution of higher learning in research, innovation, publication and teaching**

To support the above mission and vision statements, the University will focus on the following areas:

1. Academic staff
2. Academic programmes
3. Administrative and support staff
4. Research, Innovation and Publication
5. Environment and Infrastructure
6. Students
7. Leaders

These seven areas will be the focus of the University of Malaya’s attempt to be internationally renowned. The elaborations of these seven areas are as follows:

### 1. Academic staff

The goals of the university in terms of its academic staff are to produce staff members who:

- Are diverse in terms of human and intellectual backgrounds
• Have a high sense of integrity and excellence in every endeavour
• Are recognised worldwide for excellent performance
• Are committed to academic freedom and rights with responsibility and accountability
• Are imbued with the highest standards of personal and professional behaviour

2. Academic programmes

The goals of the university in terms of its academic programmes are to ensure that they:
• Are relevant, current, innovative and internationally recognised academic programmes to meet national and global needs.
• Inspire and challenge students to achieve their full potential

3. Administrative and support staff

The goals of the university in terms of its administrative and support staff are to ensure that they are:
• Highly competent, dedicated and customer-oriented staff
• A strategic partner in developing a conducive environment that promotes academic distinction
• Working in an environment where professionalism, integrity, accountability and productivity are guiding principles
• In conformity with the highest standards of personal and professional behaviour
• Empowered to execute their functions effectively

4. Research, Innovation and Publication

The goals of the university in terms of its Research, Innovation and Publication are to ensure that we have:
• Competent research personnel at various levels of research activities
• Adequate research funding through internal and external sources
• Adequate space and up-to-date facilities and support
• Fully developed niche areas of research
• High quality research management based on established policies that promote good research practice and conduct
• A majority of staff members who publish in high impact or reputable journals and academic books
• Staff members who are renowned globally for discoveries, inventions and
innovations
• A fully equipped library with state-of-the-art facilities acting as a vital resource centre for research

5. Environment and Infrastructure

The goals of the university in terms of its Environment and Infrastructure are as follows:
• A transparent performance management system that provides for performance-related reward
• An infrastructure that is environment and people-friendly as well as energy efficient
• A safe, conducive and comfortable working and living environment
• A regular and effective maintenance culture
• The latest ICT facilities and equipment
• Adequate facilities for recreational, sports and cultural activities
• Continuous improvement to the quality of utility services
• An enhanced and integrated access to the most current and comprehensive information and knowledge sources

6. Students

The goals of the university in terms of its students are as follows:
• Continuous production of highly competent and skilled individuals with leadership qualities and good interpersonal skills and also good citizens who respect universal human values
• Have students of diverse backgrounds who respect and internalise diversity
• Have students who internalises values of social and environmental awareness and obligations
• Have students with international outlook and outreach

7. Leaders

The goals of the university in terms of its leaders are as follows:
• Have people in leadership positions who possess high levels of integrity and competency
• Have a continuous leadership enhancement program to develop skills and competencies of students and staff holding leadership positions
• Have leaders who are focused on achieving performance targets and the upholding of the university’s mission, vision and core values
• Have leaders who are able to play the role of coach and mentor and as catalyst for innovation and creativity
• Have leaders who do not condone the abuse of power or position
2) Formulating a set of core values

The University never before had articulated a set of common core values. It was felt such values are particularly important as the University embarked on its process of transformation. In pursuit of excellence, these are the values to both abide by and aspire to by the whole university community. It is also an integral part of assimilating the idea of ‘Change’ in everyone and the basis of a new culture.

The same drafting process as the mission and vision statements was applied for the core values. In fact it was done simultaneously with the former.

The following core values were selected:

1. Integrity
2. Respect
3. Academic Freedom
4. Open-mindedness
5. Accountability
6. Professionalism
7. Meritocracy
8. Teamwork
9. Creativity
10. Social Responsibility

In order to ensure that there is a common understanding of these values, the Strategic Planning Steering Committee also provided elaborations of each core values as follows:

**Integrity**

- Demonstrates high ethical and moral values
- Acts with honesty and without consideration of personal gain
- Stands by decisions that are in the interest of truth and justice without fear or favour
- Does not abuse power or authority
- Does not tolerate unprofessional or unethical conduct
- Does not disparage the university
Respect

• Recognises, understands, and appreciates the existence of diversity among human beings
• Values diverse points of view and demonstrates this in daily work and decision-making
• Treats all people justly and with dignity and honour regardless of race, religion, gender or position in the organisation
• Continually examines own attitude towards others to avoid inappropriate and unjust behaviour

Academic Freedom

• Recognises the primary role of our university as an institution that advances and disseminates knowledge for the betterment of humanity
• Encourages activities that generate and disseminate knowledge beneficial to the nation and humanity
• Tolerates viewpoints or activities that differ from own perspectives
• Appreciates and promotes the expression and exchange of diverse ideas and viewpoints
• Does not engage in illegal or immoral activities under the guise of academic pursuit
• Exercises academic freedom in a responsible and ethical manner
• Values the spirit of free enquiry; its promotion will lead to intellectual growth and enlightenment; its erosion will lead to misguidance and intellectual decline

Open-mindedness

• Recognises, understands, and appreciates the existence of diversity among human beings
• Listens to ideas and viewpoints although they may contradict one’s own
• Possesses the humility to accept that one may not always be right
• Encourages the expression of ideas and viewpoints that can contribute to the intellectual development of the nation and humanity
• Be fair and judicious in assessing and evaluating ideas and viewpoints held by others

Accountability

• Possesses a sense of fairness and what is right and wrong in carrying out responsibilities
Professionalism

- Takes ownership and honours all work-related commitments
- Carries out responsibilities within prescribed time, cost and quality standards
- Operates in compliance with organisational regulations and rules
- Supervises and supports subordinates and takes responsibility for delegated assignments
- Answerable to superior for all work-related actions and conduct

Meritocracy

- Recruitment, selection and promotion will be based on merit
- Assesses students’ performance solely on the basis of their academic achievements, skills and extra-curricular activities

3) Drawing up a strategy map and identifying Key Success Factors and Key Performance Indicators (KPIs).

The strategy map was drawn up based on the SWOT analysis performed and the strategic direction of the University agreed on by the steering committee. For the first time in UM’s history, KPIs are used to measure its performance at the corporate level, faculty level and individual staff level. These KPIs are aligned to the key success factors derived from the strategy map.

For faculty level KPIs, the approach used was top-down at the initial stage in terms of setting KPIs and their proposed annual targets; after which the faculty would give its feedback on the same to university top management, i.e. a bottom-up. Once agreement is reached on the KPIs, they will be the means by which each faculty’s performance will be measured.
For individual level staff, each has to discuss and agree with his or her superior on a set of KPIs against which individual performance will be measured for the year.

The UM strategic plan can be summed up by the following table:

**TABLE 1: UM STRATEGIC PLANS 2007-2020**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Revisit Mission, Vision, Core Values, Strategic Plans</td>
<td>Implementation of Strategic Plans</td>
<td>Funding Matters</td>
<td>Continuing and Consolidation</td>
</tr>
<tr>
<td>• Establish mission</td>
<td>• Implement KPIs</td>
<td>• Review all investments</td>
<td>• Turning all programmes international</td>
</tr>
<tr>
<td>• Create vision</td>
<td>• Mid-year review</td>
<td>• Increase in endowments</td>
<td>• Strong research culture</td>
</tr>
<tr>
<td>• Agreed core values</td>
<td>• End-of-year review</td>
<td>• Increase in research grants (govt, local &amp; international sources)</td>
<td>• Other activities to be identified</td>
</tr>
<tr>
<td>• SWOT analysis</td>
<td>• Implement performance-related reward</td>
<td>• Stringent collection of fees</td>
<td></td>
</tr>
<tr>
<td>• Strategy map</td>
<td>• Action against non-performers</td>
<td>• Performance-based expenditure</td>
<td></td>
</tr>
<tr>
<td>• Key success factors</td>
<td>• Internationalisation</td>
<td>• More efficient disbursement system</td>
<td></td>
</tr>
<tr>
<td>• KPI for central</td>
<td>• Increase staff &amp; students</td>
<td>• Funding for student exchange</td>
<td></td>
</tr>
<tr>
<td>• KPI for faculties</td>
<td>• students/staff exchange</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• KPI for individuals</td>
<td>• research collaboration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Train leaders</td>
<td>• review research centres</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Rebuild website</td>
<td>• membership of international bodies</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• international recognition of programmes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Enhancement of continuing education</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Progress/Achievements To Date**

- New mission and vision statements
- Core values agreed on
- Strategy map formulated
- Key success factors identified
- KPIs (corporate, faculties, individuals) introduced
- Increase in publications e.g.
- Increase in research activities
### Publications

<table>
<thead>
<tr>
<th>Faculty of Science</th>
<th>2006</th>
<th>2007</th>
<th>Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty of Science</td>
<td>512</td>
<td>615</td>
<td>20% increase</td>
</tr>
<tr>
<td>Faculty of Business &amp; Accounting</td>
<td>76</td>
<td>148</td>
<td>96% increase</td>
</tr>
</tbody>
</table>

### Research Grants and Projects

<table>
<thead>
<tr>
<th>Research grants</th>
<th>2006</th>
<th>2007</th>
<th>Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research grants</td>
<td>RM31mil</td>
<td>RM125mil</td>
<td>Increase of 300%</td>
</tr>
<tr>
<td>Number of research projects</td>
<td>675</td>
<td>2,661</td>
<td>Increase of 300%</td>
</tr>
</tbody>
</table>

- Awarded the “Reader’s Digest trusted Brand” for tertiary education in 2007 and 2008
- MOHE 2008 Setara Result: UM the ONLY ONE in 5-star category (cemerlang)
- UM MBA program accredited by Association of MBAs (UK)
- UM Business School ranked the top in Malaysia by Eduniversal (France)
- Faculty of Built Environment, recognition by
  - Royal Inst. Of Chartered Surveyors
  - Royal Inst. Of British Architects
- Faculty of Dentistry, recognition by
  - Royal College of Surgeons of England
- Faculty of Business and Accounting, recognition by
  - Bachelor of Accounting accredited by Institute of Chartered Accountants in England and Wales (ICAEW)
- Faculty of Medicine, recognition by
  - Institute of Physics and Engineering in Medicine (UK)
- Australian and New Zealand College of Anaesthetists

- Faculty of Engineering, recognition by
  - Institute of Chemical Engineers, UK

- Performance-related rewards implemented
  - Chancellor Award
  - VC Award
  - Publication award

- Action against non-performers
- Internationalisation intensified

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of international academic staff</td>
<td>115</td>
<td>323</td>
<td>180%</td>
</tr>
<tr>
<td>Number of international undergraduates</td>
<td>243</td>
<td>722</td>
<td>197%</td>
</tr>
<tr>
<td>Number of international postgraduates</td>
<td>1399</td>
<td>1936</td>
<td>38%</td>
</tr>
</tbody>
</table>

- Continuing education enhanced
- Website rebuilt - 3rd place in MOHE website contest
- Leadership training for staff in key positions
  - DVCs attend Global Leadership Development Program (sponsored by Bank Negara)
  - Deans attend 5-day Leadership Development Program (International Consultant)
  - Deputy Deans, HODs and Administrative Officers attend Leadership Enhancement Program (Internal Consultant)
SUMMARY

What have been discussed in this paper on change leadership in an educational institution were the various activities undertaken in the first phase of the UM Strategic Plan. That is the phase during which challenges and resistance to change are most likely to surface. Overall the activities taken are as follows:

1. Understand the background against which the change is to take place (SWOT and situational analysis).
2. Establish a clear vision of where the University should go in terms of goals and aspirations (revisit mission and vision statements).
3. Promote and nurture a new organizational culture of excellence (core values, acceptance of KPIs)
4. Identify the key stakeholders (staff, students, Board of Directors).
5. Bring on board the stakeholders to the change process (invite feedback, negotiate, present, discuss).
6. Identify change agents and enhance their skills and capabilities (training).
7. Implement performance management system.
HAZARD ANALYSIS OF CRITICAL CONTROL POINT (HACCP) IMPLEMENTATION IN THE SMALL AND MEDIUM-SIZED FOOD MANUFACTURING ENTERPRISES (SMEs): A QUALITATIVE APPROACH

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ABSTRACT

This study investigates the Malaysian food SMEs’ main motive in implementing the system. It also assesses the effectiveness of the system implementation in the SMEs through the managements’ commitment, employees’ commitment and the benefits of the system to the companies’ productivity. Sample populations were selected among the food SMEs that had implemented HACCP in the Klang Valley area. Face-to-face interview approach among the representative managers has provided truly significant and in-depth information and it was found that the ‘customer requirement’ was the major motive of food SMEs in implementing HACCP, outnumbered the other motives identified. The managements’ and employees’ commitment after HACCP implementation were fairly satisfactory and HACCP offered numbers of benefits on the companies’ productivity despite a few obstacles encountered during the implementation. The overall findings clearly indicate that HACCP is a good food safety system and it is worth for the other food SMEs to invest for its implementation.

Key Words: Food Quality, Food Safety, HACCP, Food SMEs

INTRODUCTION

Global society is experiencing a gradual awakening of food consciousness particularly of its quality and safety. Over the passage of time, changes in the philosophy of, approach to and preparation of food are forcing the food industry to use new ideas to maintain food quality and safety standards, yet meet the needs of society. As with other countries, food safety is becoming an important issue in Malaysia for several reasons such as consumer awareness and the outbreak of food borne illnesses (Selamat, Shamsudin and Dulatti, 2003). However, before discussing on the issue, it is noteworthy to start with the definition of the words ‘SME’ in the context of manufacturing sector in Malaysia. SMEs are refer to small and medium-sized enterprises with the annual sales turnover of less than RM25 million with fulltime employees from 5 to 150 (SMIDEC, 2007). Ghani (2001) noted that SMEs are also regarded
as businesses that generally serve local customers which have a limited share of the available market and are usually owned by one person or by a small group of people.

SMEs accounted for 96.6 percent or 37,866 enterprises of total establishments in the manufacturing sector. Approximately, 34.9 percent of the total output of this sector or RM 191.6 billion was contributed by the SMEs. These SMEs comprise various sub-sectors such as metal plastic, electronic products as well as food and beverage manufacturing. The food and beverage manufacturing accounted for 15 percent or almost 5680 establishments, making it the third largest sub-sector after textiles and apparels (23.2 percent) and also metal and non-metallic products (16.9 percent) (Department of Statistics, 2006). It is also interesting to note that, the food and beverages contribution in term of output is the highest among all of the sub sectors, accounting for 44.1 percent or RM 84.4 billion. In addition, it is reported that the food and beverages sector was listed along with wood and furniture; metal and non-metallic mineral products; and rubber and plastic products as the major sources of employment as they engaged more than half of the work force of SMEs.

Owing to their sheer numbers, size and nature of operations, the role of SMEs particularly food manufacturing (food SMEs) in promoting endogenous sources of growth and strengthening the infrastructure for accelerated economic expansion and development in Malaysia has been recognized (Ghani, 2001). Whatever the claims and statistics, Selamat et al., (2003) argued that this sector has another crucial role in protecting public health by producing the best and the safest food for the consumers. This is very true as Malaysian consumers spent almost 35 percent of their income on foods and most importantly 40 to 50 percent of their requirements for processed food were being obtained from the food SMEs sector (Selamat et al., 2003). Ghani (2001) noted that the consumption of convenient food products such as ‘easy-to-cook’ and ‘ready-to-eat’ foods that are commonly produced by food SMEs is a growing trend among Malaysians. He added that these scenarios will further increase the food demand and the importance of food safety control within this sector. However, there is evidence that the product development has not been given appropriate attention by food SMEs particularly in terms of the quality and the safety of their product.

Most of the foods SMEs in this country are still unable to fulfill the food safety requirements in producing safe food products. For instance, some of them are still practicing traditional ways of production rather than using advanced technologies that is inappropriate and causes a substandard quality of products which in turn, produced poor quality and unacceptable products with a short shelf-life due to the lack of understanding of proper quality control and food safety among the operators and employees (Ghani, 2001). It is also reported that proper hygiene practices and procedures on the food production line are often being ignored by some of the food SMEs operators. Besides, the supply and the availability of raw materials are always inconsistent and consequently, these have caused the outbreaks of food poisoning.

According to the Ministry of Health (MOH), there has been an increment in food poisoning cases from 1599 cases in 1993 to 2283 in 1994 (Razak, 1996). Meanwhile, in 1995, there
were 28 reported food poisoning cases involving 907 victims with 2 deaths nationally. Of this, 681 were school children (Ahmad, 1996). Chua (2007) further revealed that the number of cases of food poisoning have been increased from 5957 in 2004 to 6157 cases in the year 2005. However, he added that the traceability of food poisoning cases and the food poisoning cases itself is underreported in Malaysia and further suggested that the number of actual cases happened might be frightening.

From the above statement, cases such as “cholera”, “salmonella” and “typhoid” were the most critical (Selamat et al., 2003) and they were closely related to any food products including those produced by the small and medium-sized food manufacturing enterprises. Subsequently, this has given significant impact and cause severe brand damages for those companies involved (Ghani, 2001; Selamat et al., 2003; Chua, 2007).

From the aforementioned discussions, it is understood that food SMEs throughout this country have an immense responsibility in protecting consumers’ health as Malaysian consumers’ level of awareness on food safety and hygiene are still poor (Ghani, 2001). The foods SMEs were producing inferior foods at low prices which could be dangerous for human consumption. Realizing the problems, as with the other countries, HACCP had been introduced and promoted by MOH and being adopted by the food industry in Malaysia since 1995 as the most effective mean for the identification, assessment and control of hazards in order to ensure that food is safe at the time of human consumption (Ministry of Health, 2002). Since HACCP has been introduced, many large food companies viewed it as a stepping stone to enhance the competitive edge of their food products in both of domestic and international market. As a result of HACCP implementation among them, the value of rejected local seafood exports declined by 64 percent or RM 31.6 million between 1997 and 2000. In general, the rejection rate of processed food for exports was reduced by 50 percent (Selamat et al., 2003).

However, report from MOH stated that the effectiveness of HACCP as a food safety control has not been given serious attention among the food SMEs compared to the large food manufacturing companies (Ghani, 2001; Selamat et al., 2003; Chua, 2007). This is probably because HACCP is not mandatory in this country therefore most of the food SMEs in particular are not taking serious measure of implementing this system. This is also probably due to their lack of knowledge and resources. It is argued that the food SMEs are not keen to implement HACCP due to the high cost to establish it as HACCP certification fee itself cost food SMEs almost RM 4,000. At the same time, foods SMEs also have to finance the high costs of infrastructure, consultancy, training, auditing and process improvement necessary to meet HACCP requirements. Furthermore, as the consumer awareness is still poor most of the food SMEs take the HACCP system for granted and perceived HACCP as another unnecessary burden for them (Ghani, 2001; Selamat et al., 2003).

However, despite the above concerns, there are still some of the food SMEs in this country have implemented HACCP. In 2003 for instance, there are 101 food SMEs registered for
HACCP implementation and presently, out of 5680 companies, there are about 254 small and medium food manufacturing enterprises that have implemented HACCP in their organization (SMIDEC, 2007). On a positive side, SMIDEC are expecting more food SMEs to implement HACCP by looking at the increment in the implementation rate from the previous years.

To date, most of the researches undertaken focused on the barriers prior to HACCP implementation in the overseas (Taylor, 2001; Mortimore and Wallace, 2001; Yapp and Fairman, 2006; Khatri et al., 2007). Despite the proliferation of such studies, analysis on the factors influencing the implementation and the effectiveness of the HACCP among food SMES is still limited, especially in Malaysia. In the other words, there must be an underlying motive of why some of the food SMEs in Malaysia still implemented HACCP in their organizations despite of the barriers identified.

**METHODODOLOGY**

The qualitative study through face-to-face interview approach was designed in exploring the motives of implementing HACCP system among the food SMEs in Malaysia and the effectiveness of the system in term of the managements’ and employees’ commitment and the productivity performance after the implementation of the system based on the representative managers’ subjective perspectives and experiences.

Semi-structured interview questions were developed for the managers of the food SMEs. This semi-structured interview provides the flexibility for the researcher to probe beyond the provided answers to solicit further detail (Berg, 1995 and Kumar, 1996). The structured questions developed were relied on a series of open-ended questions not only to provide in-depth and detail information for the research but also to avoid any potential biased responses during the interview by ensuring that the responses were not led by the interviewer and the ideas were discovered rather than prescribed (Taylor, 2001).

There are about 254 food SMEs that have implemented HACCP in their organizations in this country. Due to the huge population and the geographical dispersion, it was therefore decided to undertake the study only in the Klang Valley in which 50 percent or 125 food SMEs in Malaysia that had implemented HACCP are located. From this numbers, only 10 small and medium-sized food manufacturing companies were participated in this study. Nonetheless, according to McCracken (1988), for qualitative research of this nature, 8 respondents were adequate as the sample was intended to provide an opportunity to glimpse the complicated character, organization or logic of culture. A representative manager from each company was interviewed regarding the HACCP implementation in their organization. The tape-recorded interviews were first transcribed for further content analysis.
ANALYSES AND RESULTS

Qualitative

Food SMEs’ Profiles

All 10 companies represent a broad range of food manufacturing companies in Malaysia. They have penetrated the local market and also expanded their business into the international market especially to the neighborhood countries, Middle East Countries, European Countries and the US. All of the companies had implemented HACCP, but only 7 companies were certified. The remaining three are still waiting for the certification. Based on the SMEs’ definition drawn by SMIDEC (2007) 6 companies (Company A, E, F, H, I and J) felt under the medium-sized categories, while the other 4 (Company B, C, D and G) were considered as small enterprises. Their profiles are simplified and presented in the following table:

<table>
<thead>
<tr>
<th>Company</th>
<th>Major Product</th>
<th>No. of Full-time Employees</th>
<th>Market Segment</th>
<th>HACCP status</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Cooking oil, shortening, ghee</td>
<td>86</td>
<td>Local and Overseas</td>
<td>Certified</td>
</tr>
<tr>
<td>B</td>
<td>Sauces</td>
<td>50</td>
<td>Local and Overseas</td>
<td>Progress</td>
</tr>
<tr>
<td>C</td>
<td>Bakery, Cookies</td>
<td>30</td>
<td>Local and Overseas</td>
<td>Certified</td>
</tr>
<tr>
<td>D</td>
<td>Snack and Candies</td>
<td>47</td>
<td>Local and Overseas</td>
<td>Certified</td>
</tr>
<tr>
<td>E</td>
<td>Livestock</td>
<td>113</td>
<td>Local and Overseas</td>
<td>Certified</td>
</tr>
<tr>
<td>F</td>
<td>Seafood Processing</td>
<td>60</td>
<td>Local and Overseas</td>
<td>Progress</td>
</tr>
<tr>
<td>G</td>
<td>Sauces</td>
<td>46</td>
<td>Local and Overseas</td>
<td>Progress</td>
</tr>
<tr>
<td>H</td>
<td>Further Processed Chicken</td>
<td>91</td>
<td>Local and Overseas</td>
<td>Certified</td>
</tr>
<tr>
<td>I</td>
<td>Instant Noodles</td>
<td>67</td>
<td>Local and Overseas</td>
<td>Certified</td>
</tr>
<tr>
<td>J</td>
<td>Edible oil</td>
<td>77</td>
<td>Local and Overseas</td>
<td>Certified</td>
</tr>
</tbody>
</table>
HACCP Implementation: First Encounter, Initial Perception and Motives of Implementation

Results revealed that, most of the managers came across HACCP from the food exhibition, seminars, magazines and newspapers as most of them were responsible on the quality management in their organization. In other words, they were always represented their companies to attend those food exhibitions. It was found that HACCP is a popular issue highlighted whenever food exhibitions were held in Malaysia. Here a few quotes from the respective managers:

“I always represent the company in attending the suppliers and customers appointment …the seminars and forums. I’ve met a lot of peoples in the industry and we always change ideas and shared our experiences. I heard a lot about HACCP as well…”

“By the time I knew about it…hmm, I think around 2005, HACCP was really making headlines. It has been mentioned in magazines, exhibitions and even the newspapers…”

However, not all of them have a positive initial perception about HACCP as some of them doubted the necessity for HACCP and perceived that their existed food safety control measure was adequately performed and consequently they perceived HACCP as an extra burden for their companies. Some of them however realized the benefits from HACCP system implementation but their perception were overshadowed by their concerns about the cost and time of implementing the system as illustrated in the comment below:

“… I was really concerned about the cost of the implementation. For large companies, it’s not a problem. But for SMEs... It’s hard…we care about it (money). The other things was documentation… for me (that time), it’s something hard to cope with. Probably, time consuming…”

From the interview analyses it was revealed that the main reason or motive of the food SMEs in this study implemented HACCP was because of the customer requirements locally and internationally. This is evident that out of 10 companies participated in this study, 8 companies adopted HACCP because of the customer requirements. This finding is supported by Nguyen, Wilcock and Aung (2004) in Canada and Khatri and Collins (2007) in Australia who found that customer requirement is the ‘true motivator’ for food SMEs to implement HACCP especially for the companies that export their food products. Some definite comments are shown below:

“It just likes a trend nowadays. You want to export; you have to comply with certain things. In most of our cases, the importers wanted to see our food quality and safety plan. And that’s it… we must have HACCP at least. HACCP was acceptable for them. Furthermore, we don’t want to harm anyone (consumer). Whoever our customer, they deserve safest food...”
“… Some overseas companies wanted HACCP assurance. It’s our company’s direction to expand market. Without HACCP, we would loss the potential customers.”

Beside that, the other 2 reasons of adopting HACCP among participated companies were to improve operational efficiency and company’s perception of good practice. Nevertheless, these reasons are considerably minor compared to the above reason.

**Managements’ Commitment**

The management strategies in disseminating the HACCP theory and practical knowledge among the employees and their strategies to motivate and gain a full commitment from the employees towards and during HACCP implementation progress are very important. All of the 10 companies agreed that training is by far the most important element in implementing HACCP which should be conducted continuously by either the internal personnel or the external consultant. Both theory and the practical classes were provided to their employees and even for the managers and the supervisory staffs. Training programs did not only provide the knowledge and skills but also crucial in motivating the employees. A response from one of the managers:

“HACCP training is a common activity among the employees. For staff, we have a theory classes for HACCP exposure. Then the on-job training (OJT) will be conducted. Here’s the important part. It’s like a moment of truth. The theory that they (employees) learned were put into a real practice…”

It is also apparent that all companies used the build cards hanged up onto the walls to deliver the HACCP knowledge and procedures in supporting their training programs.

“Oh, besides training, we have build cards in every production and filling lines. We call it Work Instruction Procedures (WIP). We make them (build cards) quite big with large fonts, really visible for the staff. We want them to remember the procedures...Stick it in their head. Beside, they can get quick references if they forget something. It’s also about the efficiency. We want them to be able to work on their feet sometime.”

Besides training, all companies preferred to use the psychological approaches to motivate and constructing the awareness about HACCP implementation among the employees. They further claimed that the managements were concerned with the employees’ comments or ideas and they reacted positively onto it. Encouraging the employees through constructive comments and feedbacks was among the popular approaches given that the employees were actually handling significant amount of changes and tasks under the HACCP implementation by the companies. All companies asserted that the tasks were fairly-delegated to the staff by
considering the employees’ capabilities. With regard to the employees’ reward, all companies did not simply reward their employees with cash or salary increment as they have invested a lot for HACCP implementation. However, there were companies which offered an improve over-time rates for the employees and even held parties to commemorate the employees’ efforts.

**Employees’ Commitments**

The employees’ commitments towards HACCP system implementation in the participated companies were satisfying. Most of the managers used the terms ‘good’, ‘okay’ and ‘acceptable’ to describe the overall satisfaction on the commitment among their employees. However, they did not deny that a few problems regarding the employees’ commitment has been encountered during the implementation progress and referred the problems as a norm in any organization and business enterprises. The following quote might represent the whole scenarios.

“I think I can see it from their work rates and their participation. Some of them are exceptionally outstanding…reliable and efficient. You can even see their commitment during the trainings…they ask a lot of questions. Performance-wise, everything was ok. I’m not saying all of them…but generally, I’m satisfied…honest. One or two comments or problems are normal. You can’t totally escape from that.”

There were trifling issues on the different level of commitment among the foreigners and the local employees mix up especially due to the language barriers, poor educational background and the poor perception towards the system. Of 10 managers, 8 of them refused to directly point out the group of employees which are the most troublesome in the company and preferred to speak about these groups as a whole. However, from the remaining 2 managers, it was also understood that the foreigners have a quite challenging responsibility to understand how the HACCP system works in their organization and most probably have difficulties to place themselves comfortably during the trainings due to the language barriers and the poor background of education. As for the local people especially for the senior workers, they might find that it was extremely hard to adapt and to cope with the HACCP system as they might look at the system cynically and perceived it as irrelevant. The numerous changes and hard works occurred within their usual and conventional environment probably have affected their motivation and commitment and might have interrupted their other life interests.

It was also found that the task of inculcating the motivation and commitment towards HACCP culture environment and changes among the employees in a small and less structured organization was more straightforward compared to the medium-scale enterprises. Food SMEs with 50 to 150 employees (medium) with more formal management structures on the other hand, have slight difficulties in initiating and maintaining the employees’
commitment towards the changes after HACCP implementation. This is evident as 4 companies which are considered ‘small’ enterprises based on the SMEs definition provided by SMIDEC mutually stated that their less formal structure in the organization has reduced the communication boundaries between the managements and the employees hence, the strategies to gain employees’ commitment were more effortless. The other 6 managers however, bemoaned the difficulties to handle the matters as their companies employed more than 50 employees in their organization which are categorized under the ‘medium’ scale enterprises.

**Productivity after HACCP Implementation**

Interviews analysis have illustrated the whole pictures of all 10 managers’ perception on the HACCP benefits towards the companies’ productivity as all of them basically provided almost identical answers. All managers agreed that with HACCP implementation their sales have been improved as they got more customers and markets either locally or internationally. The quote below translates the above notions:

“HACCP has done magic…miracles to our company, combined with our marketing strategies. So far, our customer-based has been phenomenon...”

As the demand increased, they also claimed that the semi and fully automated machineries and equipments used in HACCP facilities designed have aided them to increase the volume of production in their operation. The overall quality and safety of the products and even the processes have shown a lot of improvement due to the introduction of the personal protection equipments to the employees, the HACCP-based machineries and good supply management to minimize the risk of contaminations and hazards during the manufacturing processes. One of the managers for instance stated that:

“The most obvious and usual problem before HACCP implementation was the physical contamination especially human hairs. Hairs were found in our products during the quality inspection (end-product testing). Now, with our personal protection equipment or we call it PPE, the problems have been solved”

Most managers also vented that HACCP implementation in some extent reduced the cost of food waste and recall as HACCP focus on the prevention of hazards rather than the end-product testing which could possibly damage the food products batches during the inspection. HACCP also provided these companies with more real time control and the tight monitoring procedures during the production processes. The following response perhaps explains the situation:

“HACCP is a very cost-effective approach although the company spent a lot from the resources just for HACCP. It reduces raw products wastage. Fully use the raw material…standardized recipes and procedures. As a
result the best foods are produced in term of quality and quantity. At the end of the day we got more businesses.”

Overall, food SMEs with HACCP recognition experienced the increase in sales and production volume, customers or markets, reduction of operating costs (less rejected/ recall products and good supply of raw material), quality and safety improvement and in some ways could improve the employees’ food hygiene practices.

Obstacles during HACCP Implementation

All companies were not totally escaped from the obstacles or hassles during the HACCP implementation. Nine companies reported that they basically encountered the resistance to change problems among the senior staff and even supervisors. This problem took place as the employees faced too many changes and get frustrated because they were not used to so many changes occurred at the same time. This in turn has probably made the dissemination of HACCP knowledge and trainings quite a challenge for these companies. The initial resistance to change and negative paradigm among those employees also occurred because some of them did not have an adequate knowledge and understanding about HACCP in the early stage of the implementation. Below is one of the managers’ responses on this matter:

“They said that HACCP procedures were ‘too strict’, ‘banyak kerja’ (too much work) and ‘buang masa’ (wasting time). We (management) got a bit headache with their attitude. Sometimes they’re just ignoring the HACCP procedures but we worked hard on that. Train and train again. It’s not that bad now.”

The other main obstacle was the extra paperwork and documentations required after the HACCP implementation. In this case, 4 companies’ managers (Company D, E, H and J) were not particularly pleased with the matter. Company E’s QA manager for instance noted that:

“Documentation is like an extra job. Everything must be in paper for reference…some kind of evident. We should be ready to retrieve the document whenever customer or audit asks for it. Every document must be thorough from every process we have…who handles the process, time, verifying that our HACCP was working properly. Not to mention the paperwork to be done in the early stage…HACCP manual, food safety policy and objective, operation, process control…”

Two managers (Company A and G) have slight concerns on the HACCP level of strictness and also considered them as an obstacle during the HACCP implementation. Both of them nagged about the wastage due to only small damage on the personal protection equipment, wrapping (Company A) and boxes (Company G). The following quote visualizes Company G’s manager’s frustration:
“… Our operation is operating smoothly with HACCP. All processes were all done with the best approach. But I’m a little bit unease to the fact that we have to replace the boxes which has small impairs to the new one. Don’t you think it was quite absurd?”

Discussion and Implications

To this end, it is proven in this study that HACCP is a very good food safety system in controlling the risk of food hazards in the food SMEs organization even though at the initial stage after its introduction, only the large food manufacturing companies dared to invest on that system. In fact, most of the results from the survey have validated the findings from the interviews with the food SMEs managers. This study has clearly demonstrated that the main motive of food SMEs in implementing HACCP was the customer requirements from either local or international market. Food SMEs customers were not only the end user or the consumer but also the larger companies and even the large retailers who subsequently distribute their products. But at the end, the supply chain would certainly stop at the end user as well, thus food SMEs have a huge responsibility in protecting public health especially in combating the escalation of food borne diseases in Malaysia. Interestingly, findings also shown that majority of food SMEs in Klang Valley that implemented HACCP experienced many benefits and improvements in term of their sales, food quality and safety as well as productivity performances although there were a few obstacles during the implementation processes. However, when they noticed the improvements, most of them were really pleased and claimed that HACCP really worth the hassle.

These findings have created a fine path for the food SMEs to take a full stride towards the implementation of HACCP. Food SMEs that had not yet implementing HACCP system therefore should view it as the most reliable measure in producing the safest food products for their consumers. It could be meaningful for these food SMEs to implement HACCP by the time food safety issues has been so popular and more countries are going to make HACCP as a mandatory uptake in any food businesses. The implementation of HACCP would definitely improve the product quality and safety and without a doubt, it would create more ‘money-spinning’ opportunities for food SMEs to penetrate the local and international market. Most importantly, they should considered adopting the system as the substandard quality and safety products are not going to sustain their brand image in the market.

The number of food SMEs that implement HACCP is continuously increasing and this positive development might be contributed from the HACCP exposure in the food exhibitions and food seminars as identified in this study (SMIDEC, 2007). However, it should be remembered that approximately there are only 250 food SMEs that had implemented HACCP from almost 6000 food SMEs throughout Malaysia and the figure could be massively increase in the upcoming years. Looking at the figure, it is learned that the task of promoting HACCP among the food SMEs is far from straightforward thus signal the needs for government or related authorities’ intervention and assistance in improving the current
situation. The Ministry of Health (MOH) in close collaborations with other relevant agencies namely the Department of Veterinary Services, Department of Fisheries, Department of Agriculture, SIRIM QAS, MARDI and the academia should therefore work together in improving the current HACCP implementation promotion by aggressively disseminating the HACCP information and benefits to the food SMEs nationwide especially for those companies without HACCP system in place as there might be possibilities that some of them did not even received the information before.

It is also understood that MOH has set a target to impose HACCP certification on all food products including the SMEs within the next ten years (New Straits Times, 2001). MOH and the associated agencies could enthusiastically and actively organize more seminars and promotional activities to cultivate or initiate food safety and quality awareness culture among all food SMEs in Malaysia. It is believed that in long-term, these kinds of promotions could also help the food SMEs to be more competitive in the local and international market and automatically boost up the Malaysian economy.

The above suggestions might sound uncomplicated, but the actual enforcement could be very challenging as food SMEs especially the small scale companies are mostly lacking in technical and financial resources. In fact, these resources are the most common barriers or impediments in implementing HACCP that have been quoted and documented in many studies worldwide. Worth mentioning here that all food SMEs participated in this study actually received the ‘quality improvement grant’ from the government through Small and Medium Industry Development Corporation (SMIDEC). The grant provided only cover around 50 percent of HACCP implementation total cost but it was really meaningful for those food SMEs in slightly reducing their load.

Looking at the success of those food SMEs with that endowment, it is therefore inspiring if the government could offers more grants, subsidies or loans for the food SMEs in elevating their financial burden and improving the facilities and infrastructures. SMIDEC and related agencies should make sure that the information about the grant reach every food SMEs in this country as some of them might not aware of the matter. Beside that, as an alternative, the small-scale food manufacturers could also merge to create big company through cooperation concept and consequently, the company can invest in HACCP and better physical structures (Zakariah, 2005).

As a conclusion, it is hoped that the recommendations and information attained from this study will assist the food SMEs in particular to implement HACCP system in their organization in order to improve the implementation rate among them. The implementation of the system might be too costly for food SMEs but the proven long-term benefits enable the food SMEs compete and established their name in an intense local and international market as well as making the most of it to create huge sources of profits. The government related authorities in addition should take proactive solutions to help this sector as both parties will be able to enjoy the economical benefits. On the other hand, consumers must be really
sensitive on the food safety issues in preventing the substandard quality and safety products from entering the market thus forcing the SMEs to implement HACCP. Finally, quality and safety management is gradually becoming the core to any food businesses thus the food SMEs should follow the same pace and implement HACCP as a precautious step for the unexpected future requirements in order to survive in the business. As a result, the Malaysian food SMEs products will not only accepted in the local market but also will be recognized internationally.

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APPLICATION OF KNOWLEDGE MANAGEMENT IN THE MALAYSIAN AIRLINE INDUSTRY: A CRITICAL REVIEW

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ABSTRACT

Knowledge has been perceived as the key strategic asset for an organization in the current competitive and unprecedented business environment, particularly in the vulnerable airline industry which has been tremendously affected by the soaring world oil price. As the future success of airlines comes to depend on how quickly and flexibly airlines respond to changes in customer demand, an uncertain business environment and competitors’ challenges, greater emphasis needs to be placed on how knowledge management can bring competitive advantage for the organization in the form of superior operational effectiveness and strategic positioning. Knowledge management covers broad and multidimensional aspects like ICT, organizational learning, intellectual capital (human capital, relationship capital and structural capital), organization design (complex knowledge), and e-commerce. The literature review conducted shows that the application of knowledge management in the industry focuses mainly on the four major constructs, namely ICT, organizational learning, intellectual capital and knowledge sharing. The objective of this paper is to analyze the current use of knowledge management in the Malaysian airline industry and to provide strategy for the future use of knowledge management in the industry.

INTRODUCTION

Knowledge is a shared collection of principles, facts, skills and rules embodied within a firm’s knowledge assets through which competitive advantage is achieved (Stonehouse and Pemberton, 1999). Managing knowledge is a prerequisite for companies operating in today’s hyper-competitive and ever-changing environment whose survival and performance is dependent on their relative speed and ability to develop durable and adaptable knowledge-based competencies (Nonaka, 1991). Knowledge while difficult to manage is a strategic organizational asset (Shepard, 2000) and according to Nonaka (1991) is the only lasting
source of competitive advantage. Knowledge can be specific or generic to varying degrees (Stonehouse and Pemberton, 1999). Specific knowledge is unique to the firm and as such is a more likely source of competitive advantage and the basis of core competences compared to generic knowledge which is necessary for operating the business (Stonehouse and Pemberton, 1999).

The airline industry with its scale, complexity, highly competitive and volatile nature, and its dependence on knowledge and information as a source of competitive advantage makes an excellent case for demonstrating how Knowledge Management (KM) is used to gain competitive advantage. This study specifically explores the following KM-related aspects in relation to the current and potential use of KM within the Malaysian airline industry.

**Information and Communication Technology (ICT)**

ICT enables KM by allowing vast amounts of data to be captured, processed, stored and disseminated to the right people at the right time. Internet technology, web-based interfaces, intranets, and portals are key KM infrastructures (Pemberton and Stonehouse, 1999).

**Organizational Learning**

Organizational learning represents a conscious effort of the organization to develop and is a continuing and continuous process aimed at acquiring skills and knowledge (Pemberton and Stonehouse, 1999). Organizations learn as their individual members learn (Argyris and Schon, 1996) and individual learning is dependent on the organization’s cultural, structure, and infrastructure context in which it takes place; the context can drive or slow the learning process (Pemberton and Stonehouse, 1999).

**Intellectual Capital**

In the competitive business landscape of the 21st century, the new business paradigm of knowledge is power and a knowledge-era global phenomenon has made intellectual capital more crucial than financial capital. Intellectual capital refers to intellectual materials that have been formalized, captured, and leveraged to produce higher-valued assets (Klein and Prusak in Stewart, 1997). It comprises human resources (skills, know-how, competence), stakeholder relationships (customers, suppliers, partners, government), and Organizational resources (systems, processes, corporate culture, management style, intellectual property, brands).

**Knowledge Sharing and Culture**

This process of KM identifies existing and accessible knowledge, in order to transfer and apply such knowledge to solve specific tasks better, faster and cheaper than they would otherwise have been solved (Christensen, 2007). But the willingness to share knowledge is
dependent on organizational culture which is embedded within a firm’s structure, stories and spaces (McDermott and O’Dell, 2001). KM-friendly organization culture is a necessity for successful KM implementation. Examples of KM-friendly organization culture are being innovative, trusting, flexible, adaptable, risk taking, performance-oriented, problem solving, team-oriented, with appropriate rewards and incentives, sharing information freely, enthusiasm for the job, tolerant of failure and supportive of superior performance.

INDUSTRY ANALYSIS

The Malaysian airline industry is in an oligopoly market structure, where it consists of one full service carrier (FSC) Malaysia Airline System (MAS) and two no-frills carriers, namely AirAsia and Firefly. The Malaysian airline industry is tightly regulated by the government and was dominated by the state-controlled MAS before the government’s domestic liberalization exercise opened up the market to allow AirAsia to join the industry. Following Porter’s (2001) generic competitive strategy, MAS and AirAsia each operates on different business models. As a full service carrier (FSC), MAS follows a differentiation strategy and charges a fare premium. In contrast, AirAsia uses a cost leadership strategy. Due to their different strategic positioning, AirAsia and MAS differ in their customer value propositions as well as target market segments. Table 1 provides a summary of the main differentiating characteristics between MAS and AirAsia.

In year 2001, AirAsia had successfully stimulated and captured the growth of discretionary air travel traffic by targeting mostly first-time travelers and budget leisure travelers. The business expansion was tremendous and had since captured a significant market share in ASEAN countries. AirAsia is currently the leading domestic carrier with 6.5 million passengers compared to MAS’ 5.4 million. Its low cost strategy and successful positioning strategy in Asian market that has putting it as the market leader in the Asian airline industry. MAS, despite being an award-winning airline, has struggled financially in the past and has only recently completed its business turnaround exercise. Moving on, MAS is embarking on a business transformation to secure its future competitive position.

Competition between the two is intensifying as both began to move into each others’ core markets and engage in price-cutting measures. AirAsia has set up a new franchise airline, AirAsia X to service long-haul routes and as a defensive move MAS has set up its own LCC, Firefly (Thomas, 2007). This in addition of the airline industry’s turbulent operating conditions, declining yields and increased foreign competition paints a long and difficult road ahead for both airlines. Competitive advantage will have to be gained through operational effectiveness and strategic positioning (Porter, 2001).
TABLE 1: PRODUCT FEATURES OF AIRASIA AND MAS.

<table>
<thead>
<tr>
<th>Product features</th>
<th>AirAsia (LCC)</th>
<th>MAS (FSC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand</td>
<td>One brand: low fare</td>
<td>Brand extensions: fare+service</td>
</tr>
<tr>
<td>Fares</td>
<td>Simplified fare structure, 60-70 percent cheaper than MAS’s fares</td>
<td>Complex fare: structure+yield management</td>
</tr>
<tr>
<td>Product</td>
<td>One product: low fare</td>
<td>Multiple integrated product</td>
</tr>
<tr>
<td>Seating</td>
<td>Small pitch, free seating</td>
<td>Generous pitch, seat assignments</td>
</tr>
<tr>
<td>Class segmentation</td>
<td>One class (high density)</td>
<td>Two class (dilution of seating capacity)</td>
</tr>
<tr>
<td>Check-in</td>
<td>Ticketless</td>
<td>Ticketless, IATA ticket contract</td>
</tr>
<tr>
<td>Airport</td>
<td>Secondary (mostly)</td>
<td>Primary</td>
</tr>
<tr>
<td>Distribution</td>
<td>Online and direct booking</td>
<td>Online, direct, travel agent</td>
</tr>
<tr>
<td>Connections</td>
<td>Point-to-point</td>
<td>Interlining, code share, global alliances (hub-to-spoke)</td>
</tr>
<tr>
<td>Customer service</td>
<td>Generally under-performs</td>
<td>Full service, offers reliability</td>
</tr>
<tr>
<td>Inflight</td>
<td>Pay for amenities</td>
<td>Complementary extras</td>
</tr>
<tr>
<td>Aircraft utilization</td>
<td>Very high</td>
<td>Medium to high: union contracts</td>
</tr>
<tr>
<td>Turnaround time</td>
<td>25 minutes</td>
<td>Low turnaround: congestion/ labor</td>
</tr>
<tr>
<td>Aircraft</td>
<td>Single type: commonality</td>
<td>Multiple types: scheduling complexities</td>
</tr>
<tr>
<td>Ancillary revenue</td>
<td>Advertising, on-board sales</td>
<td>Focus on the primary product</td>
</tr>
<tr>
<td>Operational activities</td>
<td>Core (flying), extending to tourist operations, financial services, cargo</td>
<td>Extensions: e.g. maintenance, cargo</td>
</tr>
</tbody>
</table>

(Source: O’Connell and Williams, 2005)

CURRENT USE OF KNOWLEDGE MANAGEMENT IN THE MALAYSIAN AIRLINE INDUSTRY

Information Communication Technology

The modern airline industry is dependent on ICT for its operations, namely the yield management system (YMS), computer reservation system (CRS), and enterprise resource planning system (ERP). The systems also play a pivotal role in generating and integrating information assets into organizational decision-making and a knowledge building process which helps to improve airlines’ value chains and operational efficiency. YMS helps airlines to maximize revenue for each flight and is instrumental in improving MAS’s previously poor yields. Meanwhile, AirAsia has realized increased revenue (3-4%) for the same number of aircraft by leveraging on computer forecasted high/low demand patterns that effectively shift
demand from low to high periods and charging a premium for late bookings (Kho et al., 2005).

The CRS helps to fuel AirAsia’s dramatic growth (from 2.2 million to 7 million passengers within 2 years) and minimize costs as a direct sales engine helps by eliminating commissions paid to travel agents and ticketing and handling costs (AirAsia, 2008). MAS’s e-ticketing is to save it RM 19 per ticket and e-CRM is helping it to manage its frequent flyer loyalty program and utilize customer database more effectively (MAS, 2007).

Other KM technologies such as collaboration, mobile work, content management, business intelligence, business process management (BPM), and knowledge sharing are also employed within the industry. MAS’s new Integrated Human Resource Management System has helped it to reduce administration costs, improved data management and increased its HR division’s efficiency (MAS, 2007). See Appendix 1 for how ICT enables connectivity to multiple direct sales channels in the aviation industry.

Organizational Learning

MAS and AirAsia are continuously learning to gain knowledge that when applied will lead to improved organizational performance. MAS, after its successful business turnaround is learning to internalize the new ways of working whereas AirAsia is learning to cope with its market expansion and cost efficiency. Together, they are learning to cope with the difficult operating conditions faced by many global airline companies. Going further, the organizational learning context consists of three elements; people, processes and technology.

Staff is a key aspect of knowledge management as knowledge is developed and controlled by them. According to Ingram and Baum (1997), organizations can learn from their own and their industry’s experience which MAS did with its diverse business committee team. Both airlines use an integrated performance management system to improve staff competency and secure future talent. MAS’s e-learning portal provides it with personalized, timely, current, and user-centric educational activities via consolidated access to learning and training resources from multiple sources. MAS and AirAsia both own training academies as part of their human capital development plans and have made leadership development a priority.

KM has helped both airlines to continuously improve their operational effectiveness by setting procedures, standards, performance targets and adopting best practices. Efforts are aimed towards improving the cost structure through more effective yield management and better fuel hedging strategies. AirAsia, with its aim to become the lowest cost airline in every market that it serves is relentless in cutting costs. It has clear policies and guidelines covering all areas of flight operations. Its pilots have managed to lower fuel consumption by 20% and doubled the landings it gets from the tires (Ricart and Wang, 2005).
Technology plays a major role in KM. Pemberton and Stonehouse (1999) assert that only those businesses that keep abreast with technological developments will be able to manage knowledge effectively; resulting in rapid learning and greater intelligence that will lead to the generation and sustenance of competitive advantage. MAS’s internal division facilitated the replacement of its severely inadequate legacy accounting system to result in improved quality and timeliness of information for management decision-making and significant reduction in manpower (MAS, 2007). Technology also forms the basis of airlines’ distribution model. Both airlines are now engaging in a promotional price war via their company distribution models.

AirAsia and MAS have emerged from their respective double-loop (Argyris and Schon, 1978) and generative learning (Senge, 1992) with new ways of doing things and new business opportunities. MAS is using its knowledge from the recently ended business turnaround exercise to improve its future competitiveness. It has set up Firefly, a new budget airline to compete more effectively with AirAsia. Through Firefly, MAS also intends to learn the know-how of managing a low-cost operation before adopting Firefly’s processes into MAS (MAS, 2007). Meanwhile, AirAsia is generating new competences centered on industry learning by adding financial services, and tour and accommodation to its product offer. It is also expanding into long-haul flight operations through a new franchise airline.

**Intellectual Capital**

Analysis on the intellectual capital in the Malaysian airline industry can be grouped into three different perspectives. They are human resources, stakeholder relationship and organizational resources. In terms of the human resources aspect, AirAsia’s people play a key role to the success of its low-cost business model. AirAsia trains its employees to be innovative multi-taskers and team players. AirAsia also stresses internal recruitment and relies on its Human Resources Department for this. Meanwhile, MAS is moving towards greater employee empowerment and involvement and is using web-based talent management solutions to support compliance training, reporting, and performance management across its global workforce. Both airlines have taken steps to protect their intellectual capital in the event of staff turnover by having succession plans for key personnel.

Maintaining favorable relationships with stakeholders is paramount for any businesses, especially in the airline industry where stakeholders yield considerable power. AirAsia’s excellent negotiation and lobbying skills with governments, airport authorities, international partners and suppliers has been the critical success factors to the company especially in supporting its business development and planning strategies. AirAsia, indeed started its business by tackling the basic flight passengers’ need, which is low-cost; and offered the routes which were not effectively served competitors. In other words, AirAsia possessed the knowledge capabilities of identifying what customers want, creating profitable routes underserved by other airlines within South-East Asia, as well as efficiently increasing flight frequencies in established and high growth markets. MAS has taken a more proactive approach in engaging its stakeholders (government, partners and suppliers) through a new
External Relations Department to help meet its various interests. As a result, MAS has entered into various new code-sharing partnership agreements with other airlines as well as establishing a Suppliers’ Forum for supplier relationship management. Both airlines also actively engage their stakeholders about their performance, issues, plans using a variety of means such as the mass media and intranet to raise their company profiles and improve communication with employees.

AirAsia regarded its AirAsia brand as a valuable asset and has been aggressively promoting it using bold branding strategies such as high-profile sports sponsorships (such as Formula One racing and Manchester United Football Club), and charity and community projects to raise brand awareness in both its current operating and non-operating markets. It has also leveraged its powerful brand and branding expertise to diversify into financial services, tour and accommodation. Meanwhile, MAS is using its established premium airline brand to attract and retain more passengers. Both leverage on their respective expertise in training and development (AirAsia) and aircraft maintenance and services (MAS, AirAsia) to perform third party work to generate additional profit streams. MAS’s revenue from third party work grew from RM 100 million in 2005 to RM 300 million in 2007 (MAS, 2007b).

Knowledge Sharing and Culture

Airlines share knowledge with both internal members and external parties such as financial institutions, government, commercial partners, suppliers, and customers to establish a powerful network which they can leverage to their advantage. Through code-sharing and inter-lining with other airlines MAS has established a well-balanced network that covers all of its key markets and this has had a direct positive impact on its bottom line. Communication, trust, flatter organization structures and supportive information systems are evident in the corporate culture of both airlines and according to Al-Alawi et al. (2004) are imperative factors for knowledge sharing to take place. MAS and AirAsia are using their intranet and other informal communication channels such as email, memos and bulletin boards to breakdown communication barriers. Silo mentality is counterproductive to the sharing of knowledge as the focus is inward and information communication is vertical. Acknowledging this, MAS’ has stressed on more open and honest communication, and effective consensus building and teamwork. This includes setting up a formal whistle-blowing policy, cross-functional business committee teams, and constant communication and disclosure of business plans to employees. Its CEO heads the special committee tasked with transforming MAS’s corporate culture and sends emails to employees in his effort to communicate his new vision for the company’s culture. Meanwhile, since its takeover, AirAsia has always practices open management and provides above average industry disclosure (AirAsia, 2007). AirAsia’s informal, team culture also helps organizational members to bond, which according to Nonaka (1994) helps to facilitate knowledge sharing.
STRATEGIES FOR THE FUTURE USE OF KNOWLEDGE MANAGEMENT

Effective implementation and application of KM among organizations are critical in the current knowledge-based economy. Moreover, in the current climate of continual change and uncertainty, airlines face critical problems and serious challenges (Doganis, 2006). New knowledge (especially strategies) has to develop regularly in order to stay competitive in the industry. The future success of airlines will be largely dependent on how quickly and flexibly airlines respond to both competitive and market changes (Franke, 2004). Competitive advantage as mentioned by Porter (2001) can be achieved through operational effectiveness and strategic positioning; and the firm’s unique knowledge provides the main source of its competitive advantage; allowing it to combine conventional resources in distinctive ways and provide superior value to customers (Saito et al., 2007).

It is believed that ICT will continue to be the central element in most knowledge management implementations in this competitive market. ICT will help airlines to automate and streamline processes to reduce complexity and costs as well as to provide greater convenience to the transportation of passengers and freight. Through the integration of knowledge management system and customer relationship management system, ICT will assist airlines in enhancing their transaction-data processing, to make better informed decision-based value-added customized products and services; and improve knowledge-based customer and value-driven relationship building.

ICT will support both codification and personalization knowledge management strategy where it is used to create, capture, process, store and disseminate knowledge to organization members and other authorized parties. Instant messaging, chat rooms, and expertise location applications for example, provide individuals with tailored learning for more effective knowledge transfer. Social networks that form the basis of an online corporate-wide directory are embedded with instant messaging and e-mail linkage that provides a searchable resource for employees that goes beyond the corporate directory (Powers, 2006). This will enable employees to locate a network of experts to collaborate with or get help from better informed people to solve business problems or form communities of practice. Another ICT device, an asset management solution is a knowledge sharing program which has a suite of repositories that contains intellectual capital, key resources, and discussion forums that all support the business and provides a place for staff to access and retrieve knowledge. In short, communication and collaboration technologies like video conferencing and groupware will assist knowledge creation at the group level (Saito et al., 2007).

Continued advancements in pricing and revenue optimization system will help airlines to maintain their competitiveness and increase their profit margin. Promising technologies like radio-frequency identification (RFID) when realized will also bring significant improvements to FSC’s baggage handling system (MAS, 2007b). However, for strategically important knowledge to be distributed rapidly around organizations, ICT based knowledge management system needs to be combined with learning from direct experience.
Organizational learning is vital as airlines seek to acquire new knowledge and upgrade their core competences in order to give them competitive advantage over rivals. This can be achieved through many means such as acquiring more knowledge workers, training and development, knowledge sharing, strategic alliances, corporate intelligence, e-learning, benchmarking, and learning from direct experiences. It is highly useful for airlines to adopt a learning cycle framework which combines both active and passive stages of learning. According to Honey and Mumford (1989), the learning process will help organizations to learn more effectively. Successful KM leaders like BP use the framework to capture lessons before, during and after any event (Science Applications International Corporation (SAIC), 2008). The learning process can be supported by simple process tools embedded within the company’s intranet with lessons arising from the learning loop agreed and distilled by a community of practice that is peers across the organization and has a stake in agreeing and defining organizational best practice (SAIC, 2008). Both specific and generic lessons are then incorporated into special folders on the corporate intranet, where they represent a living focus for the company’s experience around strategic and operational areas (SAIC, 2008). This however will not truly give airlines the competitive advantage that they seek from their learning processes. In order to achieve this, organizational learning must be carefully charted and be given a strategic perspective by knowledge experts such as a Chief Knowledge Officer (CKO). The CKO identifies the organization’s knowledge needs (knowledge sourcing); finds ways to meet that need (knowledge abstract); identifies and refines various ideas and principles into specific outcomes (knowledge conversion), shares and distributes the knowledge (knowledge diffusion) as well as regularly monitoring and accessing the necessity of new knowledge development. Acquiring knowledge workers is also the core factor for airlines to achieve and sustain competitive advantage. Knowledge workers are value creators and value adders to organizations, and their major contributions come from their abilities to process and apply knowledge and information (McFarlane, 2008) to create distinctive advantage for organizations and thus, achieve competitive advantage.

In order to fully capitalize on the vast amount of knowledge captured within their knowledge repositories, local airlines need to assign dedicated experts such as a CKO to leverage organization-wide knowledge. The creation of a CKO position also sends an important signal to the organization that knowledge is an asset to be shared and managed (Stuller, 1998). However, this will only be able to be implemented effectively within a knowledge-friendly organization structure with a strong knowledge culture already in the company. Great concern has been raised regarding the protection of intellectual capital from staff turnover (DeLong, 2004) and to ensure continued organizational effectiveness, airlines need to preserve their corporate memory by capturing knowledge and facilitating the transfer of both explicit and implicit knowledge between staff (Al-Hawamdeh, 2002). Possible KM tools and techniques to deal with this problem include the use of ICT, meetings, mentoring, learning logs, and job profiling. KM will continue to play a critical role in managing customer relationship and competitive intelligence (Al-Hawamdeh, 2002), focusing on the speed and manner in which information is being collected, processed and disseminated to the right people, at the right time and right place and how airlines will best respond to such information in competitive terms.
Airlines will also be looking into how to encourage knowledge sharing within the organization and built a supportive culture to enable this. As most KM models are formed in the context of a Western framework and management practices, local airlines may need to raise awareness and understanding of KM in order to reduce people’s reluctance to share their knowledge (Chowdhury, 2006). This can be done through various means such as corporate-wide campaigns, employee education, leadership by example, and appropriate reward systems. Although the industry has been promoting a culture of transparency, trust and teamwork, the practice of knowledge sharing is still at an early stage. Hence future KM efforts will see the implementation of groupware that will promote greater collaborative efforts and assist in creating and supporting communities of shared interest and information need. Knowledge repositories will continue to be of importance to airlines and in the near future should include lessons learnt from best and worst practices and other relevant information.

A knowledge transfer department or other infrastructure should also be considered to oversee the development and maintenance of the organization’s knowledge base (Liebowitz, 1999). Social networks whose features include message boards, blogs, live chat rooms, and podcasts will help to breakdown hierarchical barriers and promote informal communication channels. This will in turn help to create, coordinate, and transfer organizational knowledge. In order to ensure a knowledge sharing culture, airlines will also need to maintain their lean, flexible organization structure and motivate their people to share knowledge by rewarding those who contribute useful information into the system.

CONCLUSION

The knowledge era business environment has made businesses heavily reliant on knowledge to stay competitive in an industry. The amount of information created is overwhelming and the knowledge produced has become more complex and complicated. This paper discusses the basic, yet important, aspects of KM for the airline industry. Our literature studies concluded that generic knowledge is necessary to run the industry’s complex daily operations whereas specific knowledge is imperative for airlines’ competitive advantage. MAS and AirAsia, which operate in an oligopoly market structure in Malaysia practice KM to support their respective competitive business and strategies. Their oblique approach to KM does not necessarily mean KM is being perceived as of low importance in the industry, but rather requires a gradual application and implementation of KM, which systematically incorporating KM tools and techniques into their existing stage of business. ICT has been used in innovation, knowledge development, knowledge utilization and knowledge capitalization, which in turn has produced unique business strategies, lowered the cost of operation of airlines and increased organizational efficiency. Meanwhile, organizational learning has led to new, improved modus operandi and new business development for both airlines. Similarly, both airlines manage and leverage their intellectual capital to their maximum advantage. However, with the challenging road ahead in the airline industry there
is an increasing need to maintain competitive advantage and to progress beyond the industry’s current state of KM. AirAsia’s KM practices will need to support its expanding business besides sustaining its cost-leadership advantage in the industry; whereas MAS will have to face challenges of its hybrid strategy of competitive pricing strategies and differentiation which may allow the market to recognize its branding efforts as a five-star value carrier. Hence the “now” and “then” gaps represent the future void that KM needs to fill today.

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APPENDIX 1

![Diagram of Internet Based Distribution Framework]

(Source: Centre for Asia Pacific Aviation, 5 April 2005)
POWER, CONFLICT AND VALUE IN FRESH PRODUCE SUPPLY CHAIN

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ABSTRACT

In a supply chain, power can be seen as a mechanism for achieving co-ordination, co-operation or forced collaboration amongst channel members. However, power also affects the expectations of the two parties as to what share should of the value be returned to them. As a supply chain encompasses multiple organisations and participants, the potential for conflict grows because its sources are embedded in the interaction system: functional differentiation between parties, actors’ heterogeneity, rewards and value sharing, forms and use of power. In the context of agribusiness supply chains, it is argued that an evaluation of performance is an attempt to determine how well the chain meets the expectations of the stakeholders involved.

Key words: Supply Chain, Power, Conflict, Value in Fresh Produce, and channel members/parties.
POWER AND DEPENDENCE IN EXCHANGE RELATIONSHIPS

Referring to Dahl (1957, 1961), Lukes (1974) sees power as the ability to get another person to do something that he or she would not otherwise have done. This dimension deals with the visible face of power where power can be deliberately used in a conflict.

Referring to Bachrach & Baratz (1970), Lukes (1974) highlights another less visible face of power, noting that power is derived from control over processes. Power is often wielded to systematically exclude potential competitors from the process of decision-making, or to confine decision making to safe issues. Thus they suggest that the existence of conflict is obscured as issues are suffocated before they are voiced, or kept covert before they gain access to the relevant makers. Therefore, power can be used not only in overt attempts to influence decision-making, but also in more subtle ways where issues for decision making are selected and presented in such a way as to diffuse the possibility of conflict.

Finally, Lukes (1974) describes power as the ability to manage meaning and to shape perceptions, cognition and preferences in more cultural and ideological ways. Within this dimension, power is vested in the ability to define reality for others, so that others internalise the existing order as beneficial, or at least to acquiesce because they can imagine no alternative to it. Within this concept, power is derived from the ability to manage meaning for others and is deliberately used to negate conflict.

More recently, Foucault (1980) argues that power is not solely being exercised in a ‘top-down’ manner by which the more powerful party influences the weaker partner. Foucault suggests that one should not assume that the dominant party alone has the ability to define reality. He notes that power is implicitly defined as necessarily operating within a causal relationship. Actors are quite consciously compelling other actors to do something that they would not have otherwise done. Within this power dimension, every instance of interaction involves the “exercise” of power, because actors clearly affect one another all the time they are interacting (Astley & Sachdeva 1984).

In the behavioural literature, the common theme of power is that power has to do with the capacity of one party to control or influence the behaviour of another (Dahl 1957; Etzioni 1968; Miller & Butler 1969; Price 1969). In the marketing channel literature, power has been defined as the influence, or potential influence, which one firm has over another firm’s beliefs and behaviour relative to a set of decision variables (El-Ansary & Stern 1972; Frazier 1983b; Rosenbloom 1983). Clearly these definitions cover the three dimensions of power proposed by Lukes (1974).

Lucas & Gresham (1985) argue that these bases of power may be segmented into two broad categories under the stick or carrot principle. A coercive power source is seen as a stick, in that it involves punishment or the threat of punishment. Conversely, reward power, expertise power, referent power and other non-coercive power sources all involve a willingness to yield to the power of another organisation due to the rewards (carrot) offered (Hunt & Nevin 1974; Etgar 1976; John 1984; Gaski 1986; Scheer & Stern 1992).

Coercive power concerns actors control of negative outcomes relative to each other with the intention of gaining rewards from a partner either through punishment or threatened sanctions.
Coercion is risky, however, as it engenders the possibilities of retaliation and decreased rewards for all partners (Molm 1997; Rokkan & Haugland 2002). Non-coercive power is an ability to provide or withhold rewards in promoting desired behaviours. Non-coercive power provides numerous relational advantages, including the ability to overcome lack of consensus and reach fast decisions, promote innovation and change to address environmental opportunities and threats (Cox 2001), influence the adoption of advanced information technologies (Hart & Saunders 1997), and provide legitimacy and stability in a network (Oliver 1990).

Furthermore, the marketing channel literature sees that the bases of power for a channel participant may lie in several different areas. According to Bier & Stern (1969), a firm may possess power due to the rewards it can bestow (reward power); the punishment it is capable of dealing out (coercive power); its special knowledge in a given area (expert power); its position in the hierarchy (legitimate power); or the desire of others to identify with it (referent power).

Circumstances surrounding the channel relationship and uncertainty may also influence the power bases available to a channel member at any given time (Etgar 1977; Lucas et al. 1985). In this context, uncertainty refers to the organisational state in which attempts to predict the future impact of present activities, or inactivity, is reduced. The mere presence of uncertainty does not confer power, and when the impact of future actions is less predictable, the power of all parties may be reduced. It is the ability to cope with uncertainty which bestows power on an organisation (Hickson et al. 1971). Other organisations are more likely to allow their strategies to be influenced when the organisation doing the persuading is more adept at predicting outcomes. As increased certainty is such a valued commodity, others will follow those who can improve forecasting accuracy.

The ability to cope with uncertainty is in part related to the special knowledge an exchange partner possess in a given area: expert and information power. The use of expert or information power by a channel member is considered to be an indirect influence strategy (Smit 2006). While direct influence strategies are designed to change behaviours of the channel counterpart (target) by implying or requesting the specific action that the focal channel firm (source) wants the target to take (like requests, recommendations, promises, and appeals to legal obligations), indirect influence strategies are designed to change the other channel member’s beliefs and attitudes about the desirability of the intended behaviour. No specific action is requested directly by the dominant channel member in possession of the market information (Frazier & Summers 1984; Boyle et al. 1992).

While it is important to understand what power is, it is equally to understand the circumstances under which a stronger member uses their power. Brown et al. (1995) argue that the use of power can be divided into two categories: (1) mediated power (i.e., reward, coercion, legal legitimate) and non-mediated power (i.e., expertise, referent, information, traditional legitimate). This dichotomy reflects whether the source does or does not control the reinforcements (e.g., rewards or punishments) which guide the target’s behaviour (Tedeschi et al. 1972).

Emerson (1962) has long argued that power can be understood by analyzing dependency relations which partly answer the degree to which stronger members exercise their influence.
Resource dependency theory provides the major organisational view regarding power’s formation and management in inter-organisational relations (Ireland et al. 2007).

The central tenet of dependency theory (Pfeffer & Salancik 1978) is that the power one party can wield over another depends on the relative importance of the resources each controls. Resource dependence theory views firms as being embedded in a web of exchange relationships within an uncertain environment.

Firms are viewed as interdependent entities seeking to manage the uncertainty that is affecting them (Pfeffer 1988). These interdependencies create a situation in which firms that own or control valuable, scarce resources hold power over firms seeking those resources (Emerson 1962). Resources create dependencies; (1) when they are important, and (2) when control over them is relatively concentrated, or (3) both (Pfeffer et al. 1978).

Heide et al. (1988) note when the outcomes obtained from a relationship are important or highly valued, the focal party is more dependent. The same is true when the magnitude of the exchange itself is higher. Thus, a firm is considered more dependent on a supplier when that supplier provides a larger fraction of its business.

Dependence is also increased when the outcomes from a relationship are comparatively higher or better than the outcomes available from alternative relationships (Dubois et al. 2003; Batt 2004). Thus, firms dealing with the best supplier (in term of price, quality, etc) are more dependent because the outcomes associated with that supplier are higher than those available with lower performing suppliers.

Dependence is increased when fewer alternative sources of exchange are available to the focal party (Batt 2003, 2004). The presence of potential exchange possibilities is assessed by examining the difficulty involved in replacing the incumbent exchange partner. When replacing or substituting an exchange partner is difficult, the potential alternatives are few and dependence is increased. Both empirical and conceptual studies have noted how the concentration and aggregation in the market has reduced the number of exchange partners (Pfeffer et al. 1978) and/or the fraction of business done with the particular partner (El-Ansary et al. 1972; Etgar 1976; Dickson 1983).

Crook et al. (2006) argues that in the context of supply chain management two related factors affect dependency: resource importance–magnitude and criticality. Magnitude is the proportion of inputs or outputs that a resource represents for another. A resource is important via the magnitude of the impact that when firms will experience when they either lack of resource or access to the resource is severed.

Criticality is defined by a firm’s ability to function without the resource (Pfeffer et al. 1978). Although high magnitude resources are often critical, it is possible for a resource to be critical without representing a large magnitude of purchases or sales (Crook et al. 2006).

In a supply chain, the level of concentration means fewer firms have control over resources. Porter (1980) suggests that a key indicator of resource control is the level of industry concentration. Concentrated industries are those where a few competitors generate most
sales. Firms in such industries have considerable bargaining power due to their large volumes and the small number of alternatives (Benton & Maloni 2005).

Pfeffer et al. (1978) argue that while resource importance and concentrated control gives rise to dependencies, the interaction between these creates the strongest dependencies and the most bargaining power. Crook et al. (2006) suggests that once a firm embraces SCM, other chain members become key elements of the firm’s environment. This increases the firm’s dependence on the chain wherein the relative need to acquire resources shapes each member’s power. Overall, supply chain members who offer high magnitude or critical resources and participate in highly concentrated industries are stronger. Weaker members, on the other hand, lack such resources.

Interdependence arises when each partner believes that terminating an established relationship would be difficult for them and costly. Interdependence therefore arises from a firm’s realisation and acceptance that to be a part of a mutually beneficial exchange relationship, it must cooperate and form a cohesive bond that will endure inevitable conflicts (Fontenot & Wilson 1997). When partners believe that exit barriers are high for both sides, they are likely to collaborate as a way to manage the flow of resources between their firms (Spekman & Celly 1995).

Power is generally not found to be unilateral, but rather exists in a state of interdependence (Kumar et al. 1995a), in particular the firm’s perception of its dependence relative to its partner (Anderson et al. 1990). Hence, the exercise of power is not only dependent on the possession of power, but also the extent to which other exchange partners have countervailing market power (Ogbonna & Wilkinson 1998). Power is not only top-down, it is also bottom-up, where the weaker partner may influence the stronger party (Lukes 1974).

The presence of countervailing power forces exchange partners to differentiate between the possession of power and its use. In other words, the presence of a power imbalance does not mean that it was always be explicitly exercised in supply chain relationships (Cox et al. 2002). The extent to which this occurs (or does not occur) is determined by the relative power one firm holds over another, either because of the position of authority it commands, or the extent to which the partner is dependent on it (Frazier 1983b).

While the literature recognises that power may not often be explicitly exploited in buyer-supplier interactions, the very existence of power is important as dependence may signify forced collaboration rather than cooperation (Gaski 1984). Conflict and power-dependence will have an influence on the development of collaborative long-term relationships (Frazier & Antia 1995; Kumar et al. 1995b; Gattorna & Walters 1996).

Reve & Stern (1979) and Stern & Reve (1980) contend that power and conflict are the key behavioural constructs that influence performance. In this way, relationships between channel members are viewed as power struggles, in which the power and dependence of each party will influence the decisions they undertake and subsequently the performance of other firms (Gassenheimer et al. 1989; Skinner et al. 1992). Cox et al. (2003) concludes that power should be at the centre of any study of buyer–seller relationships. More recently, Hingley (2005) has suggested that power imbalanced relationships are the norm.
In a supply chain, power can be seen as a mechanism for achieving coordination, co-operation or forced collaboration amongst channel members (Stern et al. 1996; Berthon et al. 2003). More powerful actors in the supply chain assume responsibility for the inter-firm division of labour, monitoring outcomes, linking the discrete activities between actors, establishing and managing relationships between the various actors.

However, power also affects the expectations of the two parties as to what share should of the value be returned to them and their willingness to invest in future collaborative activities (Cox et al. 2003). In this respect, the manner in which the more powerful partner chooses to use its power will have a significant impact on the relationship.

The use of non-coercive power, like exchanging information, diminishes the level of conflict in relationships (Gaski & Nevin 1985; Brown et al. 1995); Lee, 2001), and thereby stimulates the development of trust and commitment to the relationship (Scheer et al. 1992). It ultimately reinforces the perceived power position of the influencer (Hunt et al. 1974), even though the power attributions are weaker compared to other sources of power (Keith et al. 1990; Scheer et al. 1992; Brown et al. 1995). Non coercive strategies engender greater satisfaction compared to more coercive types of influence strategies (Hunt et al. 1974; Gaski et al. 1985; Scheer et al. 1992).

Furthermore, if the more powerful firm is perceived to be using its power to achieve collective goals and does not impede the other in attaining its desired rewards, a high level of goal compatibility will exist (Ireland et al. 2007). Conversely, if a firm is perceived to frequently pressure another into taking actions which are against its own best interests, conflict will inevitably result. Partners will resist further influence attempts and try to enhance their power at the expense of the other (Molm 1999; Rokkan et al. 2002).

Regardless of the marginal value created by a relationship, ultimately, there must be a fair division of returns (Corsten & Kumar 2005), if supply chain participants are to be satisfied in their relationship. As long as there is value to be shared and actors are satisfied with what they can extract, the inherent power imbalance within relationships is unlikely to present a major problem. Even when a dependent party does not trust its partner, it may maintain the relationship simply because of the benefits it derives (Andaleeb 1996). The investment the firm needs to put into developing a new relationship in terms of time, effort and money, as well as the perceived costs of switching to an alternative exchange relationship can also contribute to its dependence on another firm (Frazier 1983a).

Dependence therefore refers to the firm’s need to maintain the channel relationship in order to achieve its desired goals (Frazier et al. 1989). Dependence can be regarded as the price the focal firm has to pay for the benefits that it obtains from its relationships with others (Easton 1992). As such, dependence is partly a matter of choice and partly a matter of circumstances.

Relationships are inherently rich in diversity. Not all relationships are based on mutual trust and commitment and nor do they always need to be (Campbell 1997; Blois 1998; Earp et al. 1999; Kalafatis 2000; Svensson 2001). Power-dependence and co-operation can coexist alongside one another (Hingley 2005). As shown by Blundel & Hingley (2001), weaker partners do enter into collaborative long-term relationships and will tolerate a power imbalance where they are able to extract greater value.
VALUE AND CONFLICT IN EXCHANGE RELATIONSHIPS

Exchange has been accepted as a core concept of the marketing discipline (Bagozzi 1975; Hunt 1991). Market exchange takes place because all parties involved expect to gain value from the exchange. Therefore, obtaining value has always been the fundamental basis for all marketing activity (Holbrook 1994).

While a variety of definitions stress different aspects of the value concept, four recurring characteristics can be identified: (1) it is conceptualised as a trade-off between benefits and sacrifices (Sawyer & Dickson 1984; Buzzell & Gale 1987; Zeithaml 1988); (2) benefits and sacrifices can be multifaceted (Grisaffe & Kumar 1998) and comprise of product-related factors (Monroe 1991), and relational dimensions (Payne & Holt 1999; Parasuraman & Grewal 2000; Dwyer & Tanner 2002), economic/monetary elements (Anderson et al. 1993; Anderson & Narus 1999; Mandjak & Simon 2004) and social/non-monetary elements (Ravald & Gronroos 1996; Wilson & Jantrania 1996a; Biong et al. 1997; Flint et al. 1997; Mandjak et al. 2004). Perception of value vary between cultures, between customers, among customers and within the supplier–customer relationship (Moller & Törrönen 2003); (3) value is an objective (quantitative) concept (Monczka et al. 2002) that is also subjective (qualitative) concept (Kortge & Okonkwo 1993; Ravald et al. 1996; Monczka et al. 2002); (4) value is perceived relative to the alternatives (Gale 1994).

Ravald et al. (1996) and Anderson et al. (1999) propose that value related to product usage is the difference between the sum of all the economic, technical, service and social advantages resulting from the consumption of goods or services, and the sum of all sacrifices incurred. Monroe (1991) suggests that the perceived benefits are a combination of physical attributes, service attributes and technical support available in relation to the particular use of the product and other indicators of perceived quality. The perceived sacrifice does not relate solely to the purchase price, but includes all other possible costs that the customer might face in the purchasing process including the cost of transportation, waiting time, repairs and maintenance, risk of failure and/or poor performance.

Economic elements of product value are the difference between the financial value of the product’s economic, technical and service advantages and the purchase price (Anderson et al. 1999). In other words, economic elements of product value are the product’s internal and external characteristics (Ravald et al. 1996). According to Reddy (1991), the internal characteristics include the product’s performance (in the sense that the good is appropriate for the usage expected by the buyer), adequacy (in the sense that the good is functioning adequately, without failure), technology, and the price. The external characteristics include the training offered by the seller, the maintenance training, the warranty, the supply of spare parts, and the post-acquisition costs that are incurred by the buyer.

However, buyers will also analyse the social elements of product value which comprise of internal and external qualities of the product package (Mandjak et al. 2004). The internal qualities are the label, the packaging and the aesthetic appearance of the product. The external qualities are the reputation of the supplier, the response ability of the seller, the quality of the buyer-seller relationship and the services offered by the seller (Reddy 1991).
The relational dimensions of value lie in business and services marketing. Value in business markets is the perceived worth in monetary units of the set of economic, technical, service, and social benefits received by a customer firm in exchange for the price paid for a product offering, taking into consideration the available alternative suppliers' offerings and prices (Anderson et al. 1993).

Wilson et al. (1996a) develop a three-dimensional categorisation of relationship value: economic, strategic and behavioural value. The economic value of relationships or monetary value includes quality improvement, market information acquired by the relationship and the thriftiness of the relationship (Anderson et al. 1993; Wilson et al. 1996a; Anderson et al. 1999). From the seller's point of view, the economic elements are the turnover and profit resulting from the relationship, the contribution of the relationship and the statement of the buyer's present value (McDougall et al. 1996; Michel et al. 2000).

Wilson et al. (1996a) suggest that the strategic dimensions of the relationship enable the partners to obtain a competitive edge, to strengthen their basic skills, and to reach more favourable market positions. The behavioural dimensions contribute to the development of a relationship culture through the evolution of a personal bond between the people involved in the relationship and the strengthening of confidence within the relationship. In sum, non-monetary benefits and sacrifices include competitive gains, competencies, social relationships, knowledge, and managerial time spent (Ravald et al. 1996; Wilson et al. 1996a; Biong et al. 1997; Flint et al. 1997).

Elsewhere, Grönroos (1997) distinguishes between two benefits and two sacrifice dimensions. Customer perceived value can be described as the core benefit plus additional services divided by price and relationship costs.

More recently, Moller et al. (2003) conceptualise value in a supplier–customer relationship along three dimensions: the supplier's efficiency function, the effectiveness function, and the network function. The efficiency function refers to the efficacious use of resources in a business relationship. A gain in efficiency results in lower production and/or transaction costs. Increased efficiency can be achieved by fine-tuning the business processes of the supplier and customer, and the exchange processes linking them. Effectiveness refers to an actor's ability to invent and produce solutions that provide more value to customers than existing offers. The network function takes into account the potential for value creation in the network beyond the dyadic supplier–customer relationship.

Monczka et al. (2002) suggest measures of supplier value. Objective (quantitative) measures refer to delivery performance, quality performance and supplier cost reduction. In turn, subjective (qualitative) measures include factors such as the supplier's problem resolution ability, technical ability, progress reporting, corrective action response, cost-reduction ideas, new-product support, and buyer–seller compatibility. In short, the literature emphasises that relationship value extends beyond the visible attributes of the goods exchanged (Ford et al. 2003).

Schumpeter (1934) discusses value creation through technological change and innovation. This view sees value as being created through the introduction of new goods or production methods, creation of new markets, discovering of new supply sources and reorganisation.
Porter (1985) introduces the value chain concept, where the economic implications of different activities are studied at the firm level and value is added step-by-step in the firm’s core activities. Prahalad (1993) views value creation from two perspectives: the performance gap – optimizing performance through operating efficiencies – and the opportunity gap – exploiting opportunities for new product, market, or business development.

Barney (1991); Gulati (1999) and Gulati et al. (2000) argue that a firm’s resources are only valuable if they can reduce costs or increase revenues compared to the situation where the firm wouldn’t possess these resources. Gulati et al. (2000) look at value creation through access to valuable information, markets and technologies, enhanced transaction efficiency and improved coordination between firms.

Moreover, Gow et al. (2002) and Thomas & Wilson (2003) argue that value can be created in different ways such as by changing processes, integrating activities and resources and improving communication among participants in a supply chain in order to shorten the time between awareness of a problem and action taken to solve the problem.

Organisations are continuously acting, interacting and developing in their environments. Value arises through the medium of exchange in the sense that economic surplus (gains from trade) is realised (Bowman & Ambrosini 2000). Something which is not put up for exchange has no value. However, exchange itself is costly (Foss & Foss 2002) and complex (Aldrich & Whetton 1981). Consequently, value can be created by reducing the costs and the complexities of exchange. In line with this, Lorenzoni & Lipparini (1999) argues that governance mechanisms contribute to value creation as the choice of governance will eventually influence transaction costs and incentives for value creation behaviour. Furthermore, beyond cost minimization, Zajac & Olsen (1993) argue that the actor’s choice of governance structure also influences the incentives of the transactors to engage in value creation behaviour for non-contractibles such as innovation, quality and responsiveness.

Mandjak et al. (2004) argue that the value of business relationships has an important motivational role, since this is why participants get into the relationship. Anderson (1995) argues that value creation and value sharing can thus be regarded as the raison d’être for collaborative customer-supplier relationships. The business relationship is on one hand a value creating process, while on the other hand it ensures the distribution of values between the partners (Mandjak et al. 2004).

Value distribution refers to the way in which the value created is allocated and shared among the participants (Sanchez & Heene 2004). The division of value generally centres on price setting (Thomas et al. 2003). Even so, value in an exchange is subjective and at best can only be partly measured. Prices are not value measurements but historical facts, indicating that at such a place and time, two parties exchanged products for cash (Callahan 2004).

Moreover, Ravald et al. (1996) point out that the trade-off between benefits and sacrifices in long-term-oriented exchange processes is not restricted to the single episode level. Rather, value assessments take into account both episode and relationship benefits and sacrifices as exchange episodes build relationships. The frequency of these exchanges and the experience acquired during past exchanges form the business relationship that the participants
understand according to their own point of view (Håkansson 1982; Håkansson & Snehota 1995).

The perceptions of actors play an important role in the judgement of the relationship. Individuals' and groups' have differing perceptions related to their own social reality. Thus, the value of business relationships has a different meaning for the supplier compared to the buyer. This difference in interpretation and perception arises at the exchange level, due to the product complexity (Hallén et al. 1987), and the importance of the products exchanged by the buyer and by the supplier (Metcalf et al. 1992).

Partners in a supply chain want their relationships to be profitable. But the particular routes to profitability for trading partners do not strictly coincide with each other as in business markets the preferences of sellers and buyers are different (Dwyer et al. 2002). In most business-to-business markets, firms are aware of the need to improve efficiency in their exchange relationships. Many firms are limiting the number of suppliers with which they do business while working more closely with those they can retain. In other cases, firms are seeking to develop markets in collaboration with suppliers and customers rather than in conflict, which existed hitherto.

Conflict between partners centres on fairness and justice related to cost and value sharing in exchange. Conflict may arise because the partners differ in their perception of what is a fair price for the bundle of attributes to be exchanged and even the composition of the bundle of attributes (Thomas et al. 2003). Parties transact for a variety of reasons and exchange different contents (Sydow 1998). This process is made more complex by the fact that each party to the exchange may not have similar or even compatible objectives in a transaction and may place different weights on activities undertaken and the resources forfeited (Goldman 1966).

Furthermore, buyers or sellers in business markets do not only seek financial rewards in relationships. They also want integrity, fairness, loyalty, flexibility, consideration in partner’s strategy, partner’s participation in their own strategies, and compliance with established administrative procedures (Dwyer et al. 2002). All of these constitute value gains in relationship. They stand behind the product and honour commitments. Sellers, who shirk obligations, misrepresent their abilities, and issue empty promises stand to lose accounts. Their tarnished reputation limits their ability to gain new ones. Buyers who are rigid in their demands and foreclose supply partners from planning impair their own productivity. Good suppliers in some industries have chosen not to deal with such customers. Thus, profits and propriety are very important in business relationships. The continuance of relationships is not so much what their partner failed to do for the focal firm, but what their partner tried to do to the focal firm that led the firm to quit.

Sellers want substantial and reliable purchase volumes at adequate margins. And they want account management expenses, promotions, and other allocated costs to leave a large portion of the gross profit intact. Buyers often turn to supply partnerships motivated by evident inefficiencies in the production process—costly safety stocks, high return rates, numerous reorders, or long lead times. These forces have prompted purchasing persons to seek suppliers that will work collaboratively to eliminate waste and improve system economies.
Conflict is related to opponent behaviour such as overt disagreement or resistance (Pondy 1967) which is direct and personal (Stern 1971). Conflict is awareness on the part of the parties involved of discrepancies, incompatible wishes, or irreconcilable desires (Boulding 1963). Conflict arises as actors are striving to attain perceived different goals manifested by mutual interference behaviour or blocking activities (Schmidt & Kochan 1972). At least one of these individuals or groups perceives the other as an opponent behaving so as to thwart, injure, destroy, or obtain scarce resources at the expense of the perceiver (Goldman 1966).

Conflict can be affective or cognitive (Pinkley 1990; Amason 1996). Cognitive conflict pertains to conflict about ideas and differences of opinion about the task (Amason & Sapienza 1997). Affective conflict, an awareness of interpersonal incompatibilities, includes affective components such as feeling tension and friction. Affective conflict involves personal issues such as dislike among partners and feelings such as annoyance, frustration, and irritation (Pinkley 1990; Amason 1996).

A third type of conflict is process conflict (Jehn 1997; Jehn et al. 1999). It is related to an awareness of controversies about aspects of how task accomplishment will proceed. More specifically, process conflict pertains to issues of duty and resource delegation, such as who should do what and how much responsibility different people should get.

Conflict is as pervasive a phenomenon in a supply chain as it is in other inter-organizational systems (Ireland & Webb 2007). It is widely accepted that economic exchange favours the more powerful business partner (Christopher & Jüttner 2000). The more powerful partner is generally in a position to create more favourable terms of trade for itself (Heide & John 1988; Frazier et al. 1989).

While issues of justice have primarily been raised to address aspects of intra-organisational relationships (Ireland et al. 2007), supply chains are in many ways themselves equivalent to organisations (Dunning 1995; Ketchen & Giunipero 2004). Justice, the rendering of what is merited or due, results from the fair and respectful use of power. Even handedness and honesty characterize the just use of power. In contrast, the unjust application of power attempts to control another’s actions against its will or without its understanding or in the absence of fault (Dwyer et al. 2002).

Distributive justice refers to the perceived fairness and equity of an organisation’s rewards as compared to its inputs in a given process (Adams 1963). To maintain a repeated social exchange based upon norms of reciprocity, the respective physical inputs of each partner must be perceived as fair by the other partner (Homans 1958). Procedural justice refers to the fairness of the actual decision-making process, as opposed to the fairness of outcomes (Lind & Tyler 1988). For example, procedural justice may exist as consideration of one’s opinions, the ability to partially influence or voice opinions in the decision-making process, consistency of the process, or timely feedback (Kim & Mauborgne 1993; Sapienza & Korsgaard 1996).

**IMPLICATION**

There are two broad approaches towards improving the performance of agricultural supply chains: reduce costs and/or add value. Cost reduction requires the removal of impediments in
term of risk and uncertainty to reduce transaction costs. Adding value requires actors in the supply chain to get closer to their customers and to better understand what their customers need.

A fresh produce supply chain is concerned not only with the supply of products and services, but is a series of interconnected flows of goods, services, incentives and information between the different participants in the chain (Poole et al. 2002). However, it is highly volatile and largely contingent on climatic influences. In the transitional economies particularly, the industry is typically atomistic, where there is a large number of small farms, a lower number of market intermediaries and the infrastructure/distance from the market poses unique constraints towards improving the performance of agricultural supply chains.

In the transitional economies, trust already exists among actors in the supply chain (Singgih & Woods 2003; Woods 2003). While fresh food relationships are asymmetric and not mutual (Hingley 2005), mechanisms that reduce the transaction costs associated with power and conflict among participants need further investigation.

The inter-organisational complexity of supply chain requires trust, but also offers the potential for conflict. Conflict is inherent in the very heterogeneity of collaborations, may be both disruptive and stimulating to the social fabric (Coser 1956; Assael 1969; DiStefano 1984; Alter 1990). Conflict need not be devastating, nor prevent the achievement of collaboration’s goal. Inter-organisational conflicts may have destructive consequences. However, a reasonable level of conflict can be functional for each and every system (Coser 1956).

As a supply chain encompass multiple organisations and participants, the potential for conflict grows because its sources are embedded in the interaction system: functional differentiation between parties, actors heterogeneity, rewards and value sharing, forms and use of power. Conflicts may be caused by competition for resources, claim for credit and dissatisfaction over the partner performance, as well as by differences in perceptions and interpretations. An elementary potential for conflict is built into all social relationships. But serious conflict can exist between partners in supply chain. Whether viewed as threatening or productive, constraining or liberating, such conflict must be taken into account in analysing the performance of a supply chain.

Performance, in its many guises, designates the values outcomes of supply chain, the criteria in terms of which supply chain are justified and evaluated. Numerous measures of individual actor and overall performance of a supply chain have been employed: effectiveness, efficiency, impact, outcomes, progress, advance, development and associated terms such as innovation and results, to express a positive evaluation of supply chain activity.

In a fresh produce supply chain, price uncertainty, opportunism and the unequitable sharing of value frequently creates friction, which eventually increase transaction costs in the relationship between the buyer and the seller. Ireland & Webb (2007) contend that power differentials between partners create opportunities for more powerful firms to act opportunistically by exercising coercion. Any firm, powerful or not, may act opportunistically if the context invites such behaviour. As exchange relationships are not
frictionless, hence, the degree of friction in the relationship will determine the level of
efficiency in the exchange. Efforts to reduce conflict may increase efficiency.

Measuring performance within a supply chain ultimately a measure of how well an actor’s
offer quality satisfies the needs and wants of downstream customers. The business literature
has repeatedly demonstrated how satisfaction is a good proxy for the performance of a
trading relationship (El-Ansary 1979).

In the context of agribusiness supply chains, an evaluation of performance is an attempt to
determine how well the chain meets the expectations of the stakeholders involved.
Performance therefore, must be evaluated on the basis of how well the supply chain satisfies
the wants of inputs suppliers, farmers, collector agents, traders, wholesalers, retailers and
consumers. One contributor to the level of satisfaction in the supply chain is the present
of conflict. This study will analyse the present power relationship, conflict and supply chain
performance i.e. satisfaction.

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A DISCRIMINANT ANALYSIS OF THE HEALTHY LIFESTYLE CONSUMER SEGMENT

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ABSTRACT

This study attempts to delineate the demographic, social cognitive, and personality characteristics of ‘high active’ and ‘low active’ exercisers. Cross-sectional data was collected via self-administered surveys from general adults sample (n = 217). The results indicate that there were significant differences in terms of age, income, occupation, social cognitive as well as personality characteristics between the two groups. ‘High active’ exercisers were significantly having higher score on all the social cognitive components and were found to be extraverts, more conscientious and open to experience when compared to ‘low active’ exercisers. Some implications for marketing practitioners and public policy makers were discussed.

INTRODUCTION

There are increasing concerns about health and fitness especially among urbanite and higher social class groups. Various health promotion campaigns organised by government and not-for-profit organisations have increased public awareness of the role of healthy lifestyle in disease prevention. This heightened public awareness and the evolvement of consumer healthy lifestyle certainly creates new opportunities and at the same time posing marketing challenges to marketers in the health-related industries. A good understanding of the shifting consumer social psychological factors influencing healthy lifestyle behaviour is integral to capitalizing on these business opportunities available.

In marketing sense, healthy lifestyle behaviours are related to a set of activities, interests, and opinions orientated toward the consumption of various goods and services. The demand for health-related products and services is largely being driven by market segments which are health conscious and have tendency towards adopting and/or maintaining healthy lifestyle (Divine and Lepisto 2005). Generally, people rely on regular exercise as a means to maintain both their physical health and psychological well-being (Plante and Rodin 1990). Given the fact that exercise is recognized as an important aspect of healthy lifestyles and desired health
behaviour, the present paper focuses on exercise participation as one of the component of healthy lifestyle behaviour. The analysis of demographic and psychosocial characteristics of exercisers could be useful to health care marketers in segmenting markets, targeting promotions, and positioning products and services.

Despite the tremendous influence that this healthy lifestyle segments has had on the health-related industry, however, there has been little empirical study in examining the social and psychological characteristics of this segment. Specifically, there has also been little research related to exercise and fitness in the marketing literature. The purpose of this study is to examine the demographic differences between ‘high active’ and ‘low active’ exercise groups as well as to predict exercise group membership into these two groups based on selected personality and social cognitive factors. Based on Symons Downs, Graham, Yang, Bargainier and Vasil’s (2006) recommendation, the subjects were classified into two exercise groups. Respondents who meet the exercise recommendations (i.e. 4 or more times per week) were classified as ‘high active’ exerciser; respondents who did not meet the recommendations (i.e. 3 or less times per week) were categorized as ‘low active’ exerciser.

**LITERATURE REVIEW**

**Determinant of Exercise Participation**

Over the years, much research has been conducted to examine which variables determine exercise participation. Kerner and Grossman (2001) state that these factors may include past program participation, high risk for coronary heart disease, perceived health, level of education, self-motivation, self-efficacy, behavioural skills support by a significant other, perceived available time, access to facilities, family influences, peer influences, cost and attitude toward physical activity. Nahas, Goldfine and Collins (2003) view the performance of exercise behaviour as a complex process, which may be affected by various intrapersonal, interpersonal, and environmental factors such as demographic and biological factors; psychological, cognitive, and emotional factors; behavioural attributes and skills; social and cultural factors; physical environment factors; and physical activity characteristics.

To summarize these factors that influence exercise behaviour, one may group them into several major categories as: (1) attitude toward exercise; (2) social or normative influence; (3) perception of control; (4) motivation (5) demographic factors; (6) personality characteristics. It was observed that all these factors have been captured in a popular social psychology model, the theory of planned behaviour (TPB; Ajzen 1991). It is known that the TPB model contains social cognitive constructs such as attitude, subjective norm and perceived behavioural control (PBC) as well as intention (which captures motivational factor). Whereas the demographic and personality factors are background data postulated in the original TPB model. Hence, the present study assesses the social cognitive characteristics.
of exercisers based on the TPB framework. The research model of the present study is depicted in Figure 1.

**FIGURE 1: RESEARCH MODEL OF THE STUDY**

![Research Model Diagram]

**Social Cognitive Constructs**
- Instrumental Attitude
- Affective Attitude
- Injunctive Norm
- Descriptive Norm
- Perceived Control
- Exercise Intention

**Personality Factors**
- Extraversion
- Conscientiousness
- Openness

**Exercise Groups and Demographic Variables**

Various studies have examined the association between demographic variables and exercise participation. Several demographic variables such as age, gender, education level, occupation, and income may have influence on exercise participation. In a study on physical activity and health outcome in sedentary women, Nies and Kershaw (2002) found age, income, and race to have significant effect on physical activity. Specifically, it was found that as age increased, overall physical activity level decreased; whereas income was related to physical activity performance positively. In an analysis of several types of healthy lifestyle behaviours including exercise, Divine and Lepisto (2005) found that individual who adopt a healthy lifestyle tend to be female, older, and more educated with higher income. According to Robinson and Rogers (1994), blue-collar occupation groups reported to be directly related to non-adherence to exercise program. Similarly, Marks and Lutgendorf (1999) reported higher income individual engaged in significantly higher levels of exercise and more educated seniors exercised more. Based on the literature discussed above, it is expected that some demographic differences exist between ‘high active’ and ‘low active’ exercise groups. Hence, it is hypothesised that:

**H1:** There will be some significant differences between ‘high active’ and ‘low active’ exercise groups along selected demographic variables.
Social Cognition Characteristics of Exercisers

Most studies in the exercise domain focus on the key links between variables under study. Research addressing whether distinct exercise groups can be differentiated on the basis of social cognitive factors has been limited. There is a need to explore differences in these social cognitive factors between exercise subgroups. This is because ‘high active’ exercise group may have different perception toward the importance of these factors compared to ‘low active’ exercise group. Also, these factors may influence different exercise groups in a different way (Godin and Shephard 1985). In examining active leisure physical activity among undergraduate students, Sylvia-Bobiak and Caldwell (2006) reported a significant difference between subjects who were often, sometime, and never active on physical activity in terms of social cognitive factors and self-efficacy. Similarly, Symons Downs, et al. (2006) reported that regular exercisers scored higher than those who did not meet the exercise guidelines on all TPB measures. Based on the above literature, it was hypothesised that:

H2: ‘High active’ exercisers tend to have higher score on selected social cognitive factors compared to ‘low active’ exercisers.

Personality Characteristics of Exercisers

In the exercise domain, there are studies focused on personality as an outcome of exercise / physical activity while others have focused on personality as an antecedent of exercise (Courneya and Hellsten 1998). However, not many studies can be found examining personality differences between exercise groups. Personality has been documented as factor related to the different exercise groups. Szabo (1992) reported that the habitually exercising subjects scored higher on extraversion and lower on neuroticism than the non-exercising subjects. Similarly, Potgieter and Venter (1995) found exercise program drop-outs to have significantly higher neuroticism scores than adherers. Rhodes, Courneya and Bobick (2001) also found non-exercisers to score lower on both extraversion and conscientiousness than exercise adherers. With regards to conscientiousness, Marks and Lutgendorf (1999) reported that individuals with greater score on conscientiousness demonstrated significantly higher level of exercise. These findings support the notion that exercisers are more extraverted and conscientious, and possess greater emotional stability (i.e. lower neuroticism) than those non-exercising and/or non-regular exercising groups. Hence, it was hypothesised that:

H3: ‘High active’ exercisers tend to have higher score on selected personality factors compared to ‘low active’ exercisers.

METHODOLOGY

This section outlines the methodology employed in the study. Regarding instrument construction, all items were adapted from previously published work with necessary wording changes. Items measuring social cognitive factors were adapted from Hagger and
Chatzisarantis (2005), Rhodes and Courneya (2003), and Rhodes, Blanchard and Matheson (2006) and were assessed on 7-point Likert-type scales range from ‘strongly disagree’ to ‘strongly agree’. Single item adapted from Godin, Jobin and Bouillon (1986) was used to measure exercise behaviour. The phrasing of this item is – “How often do you participate in one or more exercise activities for 20 to 30 minutes per session during your leisure time in the last 3 months?” Respondents were asked to indicate their response on a 7-point response choice.

The personality factors were assessed by the Big Five Inventory (BFI) developed by John, Donahue and Kentle (1991) which measures the core features of the Big Five with short phrases based on prototypical trait adjectives related to each constructs (John and Srivastava 1999). The 44 items measure five personality factors labelled Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. Instruction for the personality trait ratings read, “Here are a number of characteristics that may or may not apply to you. Please indicate how you see yourself using the scale given below. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.” Each item was rated on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The questionnaires were pre-tested to ensure clarity and ease of comprehension.

The study was carried out by using the survey approach. Data were collected from the subjects using personally administered questionnaires. A verbal consent was obtained from the participant prior to distributing the questionnaire. All participants were informed the study was on voluntary basis, and that information provided will be kept confidential. A small souvenir was offered to participants in order to encourage more participation. The exercise of data collection was conducted both during weekdays and weekends. Exercise is an urban phenomenon; it is thus justifiable to conduct the survey within the Klang Valley areas since it is the largest urban centre in Malaysia. Participants for the present study were general adult (18 to 65 years of age) recruited through informal contact. To provide an adequate level of confidence in this study, a quota sample of 600 respondents was targeted based on gender and race.

RESULTS AND DISCUSSION

The study reported that 35.7 percent of the respondents were categorised under the ‘high active’ group whilst 64.3 percent were in the ‘low active’ category. Chi-square tests of independence were conducted to evaluate the demographic differences between ‘high active exercisers’ and ‘low active exercisers’. Among the demographic variables, significant differences were found between ‘high active exercisers’ and ‘low active exercisers’ in three different demographic variables: age ($\chi^2 = 35.776, p = 0.0001$) and income ($\chi^2 = 14.278, p = 0.027$). As for occupation ($\chi^2 = 12.444, p = 0.053$), only marginal significance was found. The results indicate that various age, income, and occupation created different impacts on the two different exercise groups. Table 1 presents the results of the analysis. In terms of age, subjects in the ‘20 to 29’ and ’30 to 39’ age group tended to exercise less frequently than
those subjects who are either younger (i.e. below 20 years old group) or older (i.e above 40 years old). This is consistent with the Nies and Kershaw’s (2002) findings that found age to have significant association with physical activity participation. Piazza, Conrad and Wilbur (2001) and Netz and Raviv (2004) also found age to be related to exercise habit.

When income was examined, majority of the subjects who do not exercise regularly tended to belong to the income group of ‘RM7000 to RM8999’ and ‘RM3000 to RM4999’. Similarly, Divine and Lepisto (2005) found significant association between income and healthy lifestyle behaviour. More specifically, Nies and Kershaw (2002) found income to have significant association with physical activity. While Robinson and Rogers (1994) found blue-collar occupation groups to be directly related to non-adherence to exercise program, the present study reported a marginal significant difference whereby higher proportions of ‘low active’ exercisers were ‘executive/technician/production worker/clerical’ and ‘retired or unemployed’.

Rimal (2002) found several key socio-economic variables such as income, occupation, and education to influence individual health behaviour. In the exercise domain, Grzywacz and Marks (2001) found socioeconomic status to have association with exercise participation. While Marks and Lutgendorf (1999) reported more educated people exercised more, the present study only found significant association between income, occupation and exercise participation. However, contradicting with previous research, no significant association was found between education and exercise participation. Surprisingly, no significant gender difference was found between ‘high active’ and ‘low active’ exercisers. This too contradicts the findings of Divine and Lepisto (2005).

### TABLE 1: HIGH ACTIVE AND LOW ACTIVE EXERCISER: A DEMOGRAPHIC COMPARISON

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>‘Low Active’ (N=329)</th>
<th>‘High Active’ (N=183)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td><strong>Gender (χ² = 2.458, p-value = 0.117)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>156</td>
<td>60.9</td>
</tr>
<tr>
<td>Female</td>
<td>173</td>
<td>67.6</td>
</tr>
<tr>
<td><strong>Age (χ² = 35.776, p-value = 0.0001)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 20</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td>20 - 29</td>
<td>167</td>
<td>63.7</td>
</tr>
<tr>
<td>30 - 39</td>
<td>105</td>
<td>82.0</td>
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<tr>
<td>40 - 49</td>
<td>31</td>
<td>50.8</td>
</tr>
<tr>
<td>Above 50</td>
<td>15</td>
<td>48.4</td>
</tr>
<tr>
<td><strong>Race (χ² = 0.143, p-value = 0.931)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malay</td>
<td>164</td>
<td>64.8</td>
</tr>
<tr>
<td>Chinese</td>
<td>99</td>
<td>63.1</td>
</tr>
<tr>
<td>Indian</td>
<td>66</td>
<td>64.7</td>
</tr>
<tr>
<td><strong>Religion (χ² = 1.419, p-value = 0.841)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Islam</td>
<td>167</td>
<td>65.2</td>
</tr>
<tr>
<td>Religion</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>------------------</td>
<td>----</td>
<td>-----</td>
</tr>
<tr>
<td>Buddhism/Taoism</td>
<td>78</td>
<td>64.5</td>
</tr>
<tr>
<td>Hinduism</td>
<td>37</td>
<td>66.1</td>
</tr>
<tr>
<td>Christianity</td>
<td>42</td>
<td>60.9</td>
</tr>
<tr>
<td>Others</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Marital Status** ($\chi^2 = 0.858$, p-value = 0.835)

<table>
<thead>
<tr>
<th>Status</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>199</td>
<td>63.8</td>
<td>113</td>
<td>36.2</td>
</tr>
<tr>
<td>Married without children</td>
<td>26</td>
<td>66.7</td>
<td>13</td>
<td>33.3</td>
</tr>
<tr>
<td>Married with children</td>
<td>97</td>
<td>63.8</td>
<td>55</td>
<td>36.2</td>
</tr>
<tr>
<td>Divorced / Widowed</td>
<td>7</td>
<td>77.8</td>
<td>2</td>
<td>22.2</td>
</tr>
</tbody>
</table>

**Education** ($\chi^2 = 5.136$, p-value = 0.274)

<table>
<thead>
<tr>
<th>Level</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMR/SPR/LCE or below</td>
<td>15</td>
<td>60.0</td>
<td>10</td>
<td>40.0</td>
</tr>
<tr>
<td>SPM/SPVM/MCE/O-Level</td>
<td>59</td>
<td>56.7</td>
<td>45</td>
<td>43.3</td>
</tr>
<tr>
<td>STPM/HSC/A-Level</td>
<td>24</td>
<td>75.0</td>
<td>8</td>
<td>25.0</td>
</tr>
<tr>
<td>College Diploma</td>
<td>79</td>
<td>68.1</td>
<td>37</td>
<td>31.9</td>
</tr>
<tr>
<td>University/Professional Degree</td>
<td>152</td>
<td>64.7</td>
<td>83</td>
<td>35.3</td>
</tr>
</tbody>
</table>

**Income** ($\chi^2 = 14.278$, p-value = 0.027)

<table>
<thead>
<tr>
<th>Income Range</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below RM1000</td>
<td>30</td>
<td>66.7</td>
<td>15</td>
<td>33.3</td>
</tr>
<tr>
<td>RM1000 - RM2999</td>
<td>119</td>
<td>67.2</td>
<td>58</td>
<td>32.8</td>
</tr>
<tr>
<td>RM3000 - RM4999</td>
<td>80</td>
<td>74.1</td>
<td>28</td>
<td>25.9</td>
</tr>
<tr>
<td>RM5000 - RM6999</td>
<td>24</td>
<td>57.1</td>
<td>18</td>
<td>42.9</td>
</tr>
<tr>
<td>RM7000 - RM8999</td>
<td>7</td>
<td>70.0</td>
<td>3</td>
<td>30.0</td>
</tr>
<tr>
<td>Above RM9000</td>
<td>4</td>
<td>40.0</td>
<td>6</td>
<td>60.0</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>65</td>
<td>54.2</td>
<td>55</td>
<td>45.8</td>
</tr>
</tbody>
</table>

**Occupation** ($\chi^2 = 12.444$, p-value = 0.053)

<table>
<thead>
<tr>
<th>Occupation</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional/Managerial</td>
<td>34</td>
<td>59.6</td>
<td>23</td>
<td>40.4</td>
</tr>
<tr>
<td>Middle Level Manager</td>
<td>37</td>
<td>66.1</td>
<td>19</td>
<td>33.9</td>
</tr>
<tr>
<td>Executive</td>
<td>150</td>
<td>71.1</td>
<td>61</td>
<td>28.9</td>
</tr>
<tr>
<td>Own Business</td>
<td>23</td>
<td>59.0</td>
<td>16</td>
<td>41.0</td>
</tr>
<tr>
<td>Student</td>
<td>68</td>
<td>56.2</td>
<td>53</td>
<td>43.8</td>
</tr>
<tr>
<td>Housewife</td>
<td>10</td>
<td>50.0</td>
<td>10</td>
<td>50.0</td>
</tr>
<tr>
<td>Retired or Unemployed</td>
<td>7</td>
<td>87.5</td>
<td>1</td>
<td>12.5</td>
</tr>
</tbody>
</table>

The dimensions of the scale were examined by factor analysing the items using the principal components analysis with Varimax rotation method. Minimum eigen values of 1.0 helped determine the number of factors or dimensions for each scale. The items for a factor were retained only when the absolute size of their factor loading is above 0.5. All TPB items have achieved the minimum loading of 0.50 and were loaded on its intended domain except for two affective attitude items which were dropped from further analysis (Table 2). Unexpectedly, all items for perceived control and self-efficacy were loaded in Factor 1, explaining 36.28 percent of the total variance. Since the factor loadings for self-efficacy items were lower compared to perceived control, the self-efficacy construct was removed from subsequent analysis. This result is consistent with Rhodes and colleagues’ recent research finding that self-efficacy items do not measure Ajzen’s (1991) PBC construct as well as do controllability items.
Table 3 shows that three factors can be identified to explain the underlying characteristics of personality. All items for conscientiousness and neuroticism were loaded on Factor 1. As the factor loadings for neuroticism items were relatively lower than conscientiousness, the neuroticism items were removed from subsequent analysis. One of the conscientiousness items (C5) was also eliminated due to factor loading below the recommended value of 0.50. The rest of the items had at least fair loadings on their intended constructs. Consequently, only extraversion, conscientiousness, and openness were included in the subsequent analysis.

The component items of each factor derived in the factor analyses were subject to internal consistency reliability test using Cronbach’s coefficient alpha. By convention, an acceptable level of coefficient alpha to retain an item in a scale is at least 0.70 (Nunnally 1978). All measures of alpha coefficients for the scales used were above 0.70, ranging from 0.72 to 0.956, indicating satisfactory reliability for the measures used. Subsequently, summed mean scores of multiple indicators were created for the research constructs and used in further analyses.

### TABLE 2: ROTATED FACTOR MATRIX FOR SOCIAL COGNITIVE STATEMENTS

<table>
<thead>
<tr>
<th>Items</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>F5</th>
<th>F6</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA1</td>
<td>0.194</td>
<td>0.115</td>
<td>0.386</td>
<td><strong>0.617</strong></td>
<td>0.171</td>
<td>-0.103</td>
</tr>
<tr>
<td>IA2</td>
<td>0.215</td>
<td>0.040</td>
<td>0.024</td>
<td><strong>0.716</strong></td>
<td>0.082</td>
<td>0.259</td>
</tr>
<tr>
<td>IA3</td>
<td>0.231</td>
<td>0.132</td>
<td>0.486</td>
<td><strong>0.579</strong></td>
<td>0.197</td>
<td>-0.011</td>
</tr>
<tr>
<td>IA4</td>
<td>0.128</td>
<td>0.048</td>
<td>0.075</td>
<td><strong>0.773</strong></td>
<td>0.058</td>
<td>0.264</td>
</tr>
<tr>
<td>IA5</td>
<td>0.252</td>
<td>0.054</td>
<td>0.382</td>
<td><strong>0.574</strong></td>
<td>0.254</td>
<td>0.002</td>
</tr>
<tr>
<td>IA6</td>
<td>0.245</td>
<td>-0.015</td>
<td>0.290</td>
<td><strong>0.631</strong></td>
<td>0.325</td>
<td>0.081</td>
</tr>
<tr>
<td>AA1</td>
<td>0.219</td>
<td>0.115</td>
<td><strong>0.742</strong></td>
<td>0.195</td>
<td>0.108</td>
<td>0.139</td>
</tr>
<tr>
<td>AA2</td>
<td>0.330</td>
<td>0.149</td>
<td><strong>0.710</strong></td>
<td>0.176</td>
<td>0.075</td>
<td>0.118</td>
</tr>
<tr>
<td>AA3</td>
<td>0.270</td>
<td>0.042</td>
<td><strong>0.739</strong></td>
<td>0.193</td>
<td>0.171</td>
<td>0.234</td>
</tr>
<tr>
<td>AA4</td>
<td>0.273</td>
<td>0.094</td>
<td><strong>0.718</strong></td>
<td>0.184</td>
<td>0.133</td>
<td>0.332</td>
</tr>
<tr>
<td>AA5</td>
<td>0.227</td>
<td>0.105</td>
<td>0.277</td>
<td>0.247</td>
<td>0.127</td>
<td><strong>0.703</strong></td>
</tr>
<tr>
<td>AA6</td>
<td>0.130</td>
<td>0.087</td>
<td>0.337</td>
<td>0.146</td>
<td>-0.002</td>
<td><strong>0.709</strong></td>
</tr>
<tr>
<td>IN1</td>
<td>0.071</td>
<td>0.182</td>
<td>0.230</td>
<td>0.134</td>
<td><strong>0.656</strong></td>
<td>-0.017</td>
</tr>
<tr>
<td>IN3</td>
<td>0.187</td>
<td>0.183</td>
<td>0.118</td>
<td>0.224</td>
<td><strong>0.706</strong></td>
<td>0.020</td>
</tr>
<tr>
<td>IN4</td>
<td>0.117</td>
<td>0.278</td>
<td>0.008</td>
<td>0.066</td>
<td><strong>0.713</strong></td>
<td>0.137</td>
</tr>
<tr>
<td>IN5</td>
<td>0.124</td>
<td>0.149</td>
<td>0.075</td>
<td>0.126</td>
<td><strong>0.782</strong></td>
<td>-0.003</td>
</tr>
<tr>
<td>DN1</td>
<td>0.106</td>
<td><strong>0.857</strong></td>
<td>0.109</td>
<td>0.048</td>
<td>0.092</td>
<td>0.024</td>
</tr>
<tr>
<td>DN2</td>
<td>0.120</td>
<td><strong>0.774</strong></td>
<td>0.132</td>
<td>0.051</td>
<td>0.241</td>
<td>0.019</td>
</tr>
<tr>
<td>DN3</td>
<td>0.137</td>
<td><strong>0.890</strong></td>
<td>0.080</td>
<td>0.024</td>
<td>0.150</td>
<td>0.020</td>
</tr>
<tr>
<td>DN4</td>
<td>0.162</td>
<td><strong>0.839</strong></td>
<td>0.079</td>
<td>0.035</td>
<td>0.199</td>
<td>-0.019</td>
</tr>
<tr>
<td>DN5</td>
<td>0.143</td>
<td><strong>0.806</strong></td>
<td>-0.005</td>
<td>0.094</td>
<td>0.130</td>
<td>0.226</td>
</tr>
<tr>
<td>PC1</td>
<td><strong>0.770</strong></td>
<td>0.099</td>
<td>0.091</td>
<td>0.115</td>
<td>-0.042</td>
<td>0.157</td>
</tr>
<tr>
<td>PC2</td>
<td><strong>0.794</strong></td>
<td>0.126</td>
<td>0.214</td>
<td>0.064</td>
<td>0.033</td>
<td>-0.015</td>
</tr>
<tr>
<td>PC3</td>
<td><strong>0.687</strong></td>
<td>0.212</td>
<td>0.274</td>
<td>0.129</td>
<td>0.190</td>
<td>0.047</td>
</tr>
<tr>
<td>PC4</td>
<td><strong>0.822</strong></td>
<td>0.104</td>
<td>0.236</td>
<td>0.084</td>
<td>0.078</td>
<td>-0.019</td>
</tr>
<tr>
<td>PC5</td>
<td><strong>0.669</strong></td>
<td>0.026</td>
<td>0.175</td>
<td>0.070</td>
<td>0.049</td>
<td>-0.113</td>
</tr>
<tr>
<td>PC6</td>
<td><strong>0.750</strong></td>
<td>0.136</td>
<td>0.016</td>
<td>0.205</td>
<td>0.004</td>
<td>0.196</td>
</tr>
</tbody>
</table>
**TABLE 3: ROTATED FACTOR MATRIX FOR PERSONALITY STATEMENTS**

<table>
<thead>
<tr>
<th>Items</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F1</td>
</tr>
<tr>
<td>E1: Is talkative</td>
<td>0.494</td>
</tr>
<tr>
<td>E3: Is full of energy</td>
<td>0.486</td>
</tr>
<tr>
<td>E4: Generates a lot of enthusiasm</td>
<td>0.432</td>
</tr>
<tr>
<td>E5: Tends to be quiet</td>
<td>0.366</td>
</tr>
<tr>
<td>E7: Is sometimes shy, inhibited</td>
<td>0.216</td>
</tr>
<tr>
<td>E8: Is outgoing, sociable</td>
<td>0.398</td>
</tr>
<tr>
<td>C1: Does a thorough job</td>
<td>0.780</td>
</tr>
<tr>
<td>C3: Is a reliable worker</td>
<td>0.797</td>
</tr>
<tr>
<td>C4: Tends to be disorganised</td>
<td>0.812</td>
</tr>
<tr>
<td>C5: Tends to be lazy</td>
<td>0.494</td>
</tr>
<tr>
<td>C6: Perseveres until the task is finished</td>
<td>0.808</td>
</tr>
<tr>
<td>C7: Does things efficiently</td>
<td>0.800</td>
</tr>
<tr>
<td>C8: Makes plans and follows through with them</td>
<td>0.790</td>
</tr>
<tr>
<td>N1: Is depressed, blue</td>
<td>-0.784</td>
</tr>
<tr>
<td>N2: Is relaxed, handles stress well</td>
<td>-0.761</td>
</tr>
<tr>
<td>N4: Worries a lot</td>
<td>-0.782</td>
</tr>
<tr>
<td>N5: Is emotionally stable, not easily upset</td>
<td>-0.775</td>
</tr>
<tr>
<td>N7: Remains calm in tense situations</td>
<td>-0.749</td>
</tr>
<tr>
<td>N8: Gets nervous easily</td>
<td>-0.743</td>
</tr>
<tr>
<td>O1: Is original, comes up with new ideas</td>
<td>0.151</td>
</tr>
<tr>
<td>O2: Is curious about many different things</td>
<td>0.084</td>
</tr>
<tr>
<td>O5: Is inventive</td>
<td>0.069</td>
</tr>
<tr>
<td>O8: Is sophisticated in art, music, or literature</td>
<td>0.064</td>
</tr>
<tr>
<td>Eigen Values</td>
<td>11.74</td>
</tr>
<tr>
<td>Total Variance Explained (%)</td>
<td>51.059</td>
</tr>
</tbody>
</table>

Note: * Items were dropped from subsequent analysis

Independent sample t-tests were used to compare mean scores for the TPB components and personality factors between ‘high active’ and ‘low active’ exercise groups. Table 4 presents the results of the mean comparisons between the two groups. The differences in group means were statistically significant in all the social cognitive and personality factors compared. In summary, the t-test analysis concluded that subjects who had favourable attitudes, experiencing higher social pressures from significant others as well as having greater perceived control and intention to exercise tended to be ‘high active’ exercisers. As for
personality profile, it was reported that the ‘high active’ exercisers tended to be extravert, and possess higher score on conscientiousness and openness compared to ‘low active’ exercisers.

**TABLE 4: COMPARING THE MEAN SCORES OF SOCIAL COGNITIVE AND PERSONALITY FACTORS**

<table>
<thead>
<tr>
<th>Social Cognitive Factors</th>
<th>Mean*</th>
<th>t-value</th>
<th>Significance b</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘High Active’</td>
<td>‘Low Active’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instrumental Attitude</td>
<td>6.41</td>
<td>5.79</td>
<td>-11.379</td>
</tr>
<tr>
<td>Affective Attitude</td>
<td>6.11</td>
<td>5.28</td>
<td>-12.122</td>
</tr>
<tr>
<td>Injunctive Norm</td>
<td>5.56</td>
<td>5.00</td>
<td>-6.589</td>
</tr>
<tr>
<td>Descriptive Norm</td>
<td>4.84</td>
<td>4.14</td>
<td>-6.935</td>
</tr>
<tr>
<td>Perceived Control</td>
<td>5.70</td>
<td>4.76</td>
<td>-13.162</td>
</tr>
<tr>
<td>Exercise Intention</td>
<td>6.06</td>
<td>5.16</td>
<td>-15.005</td>
</tr>
<tr>
<td>Extraversion</td>
<td>5.83</td>
<td>4.87</td>
<td>-18.369</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>6.24</td>
<td>4.77</td>
<td>-23.921</td>
</tr>
<tr>
<td>Openness</td>
<td>5.17</td>
<td>4.71</td>
<td>-5.667</td>
</tr>
</tbody>
</table>

Note: *Higher scores represent greater agreement with the attributes; b Level of significance using t-tests

While the significant test of the mean differences of the social cognitive and personality factors provides a preliminary insight into the differences between the two groups, the use of t-test was not able to determine the relative importance of each factor that best discriminate between ‘high active’ and ‘low active’ exercise groups. Therefore, discriminant analysis was needed to provide an exploration into the discriminating power of the factors. The group differences results (Table 5) revealed that the group who exercise regularly was significantly different from the group who does not exercise as regular in terms of all social cognitive and personality factors under studied. It is reported that conscientiousness is the most important predictor variable followed by extraversion and exercise intention, with the F-value recorded at 367.086, 260.135 and 190.653 respectively. The results had thus far indicated that conscientiousness, extraversion, and exercise intention were the most important significant factors in discriminating the two exercise groups.

**TABLE 5: EXERCISE GROUP DIFFERENCES**

<table>
<thead>
<tr>
<th>Variables</th>
<th>‘Low Active’</th>
<th>‘High Active’</th>
<th>Wilks’ Lambda</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumental Attitude</td>
<td>5.79 .717</td>
<td>6.40 .500</td>
<td>.828</td>
<td>106.228</td>
<td>0.0001</td>
</tr>
<tr>
<td>Affective Attitude</td>
<td>5.29 .854</td>
<td>6.11 .664</td>
<td>.800</td>
<td>127.603</td>
<td>0.0001</td>
</tr>
<tr>
<td>Injunctive Norm</td>
<td>5.00 .992</td>
<td>5.56 .882</td>
<td>.926</td>
<td>40.598</td>
<td>0.0001</td>
</tr>
<tr>
<td>Descriptive Norm</td>
<td>4.14 1.09</td>
<td>4.84 1.066</td>
<td>.914</td>
<td>48.094</td>
<td>0.0001</td>
</tr>
<tr>
<td>Perceived</td>
<td>4.76 .960</td>
<td>5.70 .645</td>
<td>.785</td>
<td>139.448</td>
<td>0.0001</td>
</tr>
</tbody>
</table>
As shown in Table 6, there was only one discriminant function with the eigenvalue of 0.844 produced for the two exercise groups. The canonical correlation was 0.676, when squared value implied that this model could explain 45.7 percent of the variance in the dependent variable exercise category. Based on standardized function coefficients, it was reported that conscientiousness (0.601) made the greatest contribution to the function, followed by extraversion (0.302) and exercise intention (0.031).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Standardized Discriminant Function Coefficients</th>
<th>Pooled Within-groups Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conscientiousness</td>
<td>0.601**</td>
<td>0.924</td>
</tr>
<tr>
<td>Extraversion</td>
<td>0.302**</td>
<td>0.778</td>
</tr>
<tr>
<td>Exercise Intention</td>
<td>0.031**</td>
<td>0.666</td>
</tr>
<tr>
<td>Perceived Control</td>
<td>0.190**</td>
<td>0.569</td>
</tr>
<tr>
<td>Affective Attitude</td>
<td>0.112**</td>
<td>0.545</td>
</tr>
<tr>
<td>Instrumental Attitude</td>
<td>-0.009**</td>
<td>0.497</td>
</tr>
<tr>
<td>Descriptive Norm</td>
<td>0.131**</td>
<td>0.334</td>
</tr>
<tr>
<td>Injunctive Norm</td>
<td>-0.087**</td>
<td>0.307</td>
</tr>
<tr>
<td>Openness</td>
<td>-0.030**</td>
<td>0.260</td>
</tr>
</tbody>
</table>

Note: Eigenvalue = 0.844; Canonical Correlation = 0.676; Wilk’s Lambda = 0.542; Chi-square = 309.236 ** p<.01

The classification results of the discriminant analysis are presented in Table 7. Approximately 78.1 percent of the respondent in ‘low active’ group was correctly classified, while 96.7 percent of ‘high active’ exercisers were correctly classified. Overall, 84.8 percent of the respondents were correctly classified based on the discriminant function. The classified matrix showed that predictive accuracy of the function was 84.8 percent between the ‘high active’ and ‘low active’ exercise groups.
TABLE 7: CLASSIFICATION RESULTS OF DISCRIMINANT ANALYSIS

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>Group Centroids</th>
<th>Number of Cases</th>
<th>Predicted Group Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Low Active’</td>
<td>-0.684</td>
<td>329</td>
<td>257 (78.1%)</td>
</tr>
<tr>
<td>‘High Active’</td>
<td>1.229</td>
<td>183</td>
<td>72 (21.9%)</td>
</tr>
</tbody>
</table>

Note: 84.8% of the grouped cases were correctly classified.

CONCLUSIONS

This paper is one of the first few attempts to analyse the social cognitive and personality profile of individual exercisers in Malaysia. The study found that ‘high active’ and ‘low active’ exercisers are indeed different in a number of aspects. Demographically, it was reported that age, income and occupation have significant association with exercise participation. However, the two groups, ‘high active’ and ‘low active’ exercisers, do not differ significantly in other demographic characteristics, namely gender, race, religion, marital status, and education. With regards to social cognitive characteristic, the study found significant differences between ‘high active’ exerciser and ‘low active’ exerciser in terms of all the TPB components under studied. Specifically, ‘low active’ group had a less favourable instrumental and affective attitude, less subjective to social pressure, less perceived control over exercising, and lower intention to exercise compared to ‘high active’ exercisers. The findings regarding exercise group differences in terms of social cognitive factors were consistent with the past research (Symons Downs, et al. 2006).

In terms of personality characteristics, the study found significant differences between the two exercise groups based on the three personality factors. ‘High active’ exercisers tended to be extraverts, more conscientious and more open to experience as compared to ‘low active’ exercise group. The current findings related to the group difference in terms of personality characteristics were consistent with previous research. In predicting the group membership, among all factors included in the discriminant analysis, conscientiousness emerged to be the most important factors in discriminating the two exercise groups. This is followed by extraversion. Generally, the personality factor – openness – appears to be substantially neglected in health research (Marshall, Wortman, Vickers, Kusulas and Hervig 1994). The current finding that regular and more active exercisers tended to be more open to experiences would certainly add value to provide important insights into the potential role of openness in health related behaviour.

IMPLICATIONS FOR MARKETERS AND PUBLIC POLICY MAKERS

The present study demonstrated significant differences between ‘high active’ and ‘low active’ exercise groups in terms of social cognitive and personality characteristics. Generally, this implies that different exercise groups may behave differently when it comes to purchase and
consumption of certain products and services. Those manufacturers or vendors who supply health-related products and services that appeal to the healthy lifestyle segment need to consider the differences between these sub-segments in order to make better decision as to how best in utilising marketing budgets for advertising, personal selling efforts, and other promotion activities.

The study found that demographic characteristics, such as age, income, and occupation are more important than gender, race, religion, marital status, and education background in delineating whether an individual is going to be highly active or less active in exercise participation. This has strong implications to marketing practitioners especially those involved in health-related industries. For instance, health club and various fitness programs operators can rely on these characteristics to influence customers to join their club membership. Marketing strategies and tactics need to be adapted to reach different groups of exercisers. The health and fitness market in Malaysia is becoming more competitive. Marketers need to embrace innovative marketing strategies and findings ways to differentiate themselves in the competitive market. Good understanding of relevant target market characteristics is crucial for subsequent positioning strategies planning that could help to distinguish their brand and services from competitors’ ones. Demographic findings are also crucial to sport marketing in identifying consumers who are most likely to attend sport event and/or use certain types of products or services.

The choices made by individual concerning exercise and fitness activities are a form of consumer behaviour. In the marketing perspective, consumers adopting a healthy lifestyle can be viewed as a specific market segment. Understanding social cognitive profile of the two exercise groups is important. Armed with this knowledge, marketers can segment the market according to these characteristics. For instance, based on such information, health care marketers are in a much better position for market planning and development of current or new offerings, and development of appropriate communication strategies. Food manufacturers and retailers could also use such information to determine the appropriateness of product, distribution, and promotional strategies that target at these segments. This study revealed that ‘high active’ exercisers tended to have more positive attitude towards healthy activities like exercise. As exercise is an important component of healthy lifestyle behaviours, this implies that the ‘high active’ groups may potentially be health conscious consumer segment. In this instance, health care service providers that traditionally focused on ill consumers may consider a new market for their wellness program or other health promotion products or services. This market segment could be targeted by determining the purchasing behavioural characteristics, shopping and media habits of individuals who have favourable attitude towards adopting healthy lifestyle.

The application of discriminant analysis revealed that personality variables (i.e. conscientiousness and extraversion) are among the most important factor in discriminating between ‘high active’ and ‘low active’ exercise groups. Generally, ‘high active’ exercisers are more extraverts, more conscientious and more open to new experiences. This has important implications for advertisers and marketers targeting at this segment especially for
their marketing communication efforts. Appropriate advertising messages and media selection could be planned to make their advertisement more appealing to such segment. Beside, the findings also have implication for sport marketing. Individuals are likely to participate in sport or events that reflect their personality. Hence, sport event organisers must ensure the sport activities fit the personality types of their target market and vice versa in order to make marketing appealing.

Increasing concern over rapidly increasing health care expenditures in Malaysia is evident in the media. The pressure of escalating costs of public health care has been a major concern for people and the government. The government is actively promoting public healthy lifestyle behaviour as it is crucial in reducing both health risks and medical costs. The findings of this study regarding demographic, social cognitive and personality profile of exercise groups are useful for public policy officials and health professionals in health promotion efforts. They may use such information to intervene effectively the growing incidence of obesity and other illnesses such as diabetes, heart attack that relate to physical inactivity and unhealthy diet according to the characteristics of exercise groups.

LIMITATIONS OF THE STUDY

There were several limitations encountered during the implementation of the study which should be considered when interpreting the results of this study. First, a cross-sectional design was employed and hence did not adhere to the logically time interval stated in the TPB. However, the fact remain that the longer the time interval between the measurement of intention and actual performance of behaviour, the more unforeseen circumstances that may affect the behavioural outcome (Ajzen and Fishbein 2004). Realistically, the cross-sectional approach is preferred given the difficulty of having to re-contact the subjects at Time 2. Besides, exercise can be considered a habitual activity and considerable stable behaviour (Rhodes and Courneya 2003) and it is quite common in TPB research. Second, although subjects were assured of anonymity and confidentiality, potential social desirability may have artificially inflated the observed relationship when self-report measures were adopted. Nevertheless, most TPB researchers still rely largely on self-report data as it is considered the most common and practical approach for its consistent reliability and validity. The last limitation concerns the methodology adopted in the present study. As the present study focuses on a specific exercise groups, comparison can not be made with those who do not exercise or those who has stopped exercising. Also, as the participation in the study was voluntary, subjects may be more health conscious and tend to be better educated and knowledgeable. Although careful consideration has been given in the quota set, the generalisability of the findings to a wider population should be done with caution.

Future research should consider more objective measures such as fitness class attendance or activity monitoring. Further refinements and validation of the personality scales is also necessary by adapting the scale to local cultural settings. Other possible research idea may be the inclusion of more narrowly defined personality factors such as locus of control, self-
motivation, and self-esteem. The attempt to investigate other consumer healthy lifestyle behaviours such as healthy eating, tobacco-free lifestyle, substance use, health preventive practices, and weight control is needed to explore more comprehensive aspect of healthy lifestyle.

REFERENCES


HUMAN CAPITAL DEVELOPMENT: CONTEMPORARY CHALLENGES OF A PRIVATE INSTITUTION OF HIGHER EDUCATION IN MALAYSIA

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ABSTRACT

This paper describes the journey of a private institution of higher leaning in Malaysia in the quest of meeting a nation’s call for human capital development and at the same time satisfying shareholders’ and stakeholders’ expectations. It describes the undertakings in the balancing act of being a good corporate citizen and commercial demands for monetary profits which are necessary for sustainability. Through the analysis some of the difficulties encountered and overcome, the author puts forth recommendations that may be worthwhile for consideration of the policy makers in manpower planning for the country.

INTRODUCTION

Professor Nigel Nicholson in his book “Executive Instinct: Managing the Human Animal in the Information Age” pointed out,

“The system that knows itself has more control over its own destiny.”


These wise words have been the guiding light in all the change management projects of the author through her years as a change management consultant.
When she embarked into writing this paper, it became even more apparent that the human capital should not be developed randomly. Since human capital development is a life-long job, gaps, reversions and failures should be reduced to a minimum – thus the imperative of keeping tabs on its development.

This paper begins with the Malaysian government’s view of human capital development and identified that the institutions of higher learning are responsible for nurturing these “initial abilities” in members of the work force. Likewise in other countries around the world, the dichotomy of public and private institutions exists in Malaysia. Through careful analysis of the voluminous amount of data available in the Government, the paper traces the expected course for these institution to take. Along the way, it highlighted two issues pertinent to course content of degree and post-graduate programmes. Commenting on the obstacle-filled “par course” to managing research, the paper puts forth recommendations for the Government to take note in its endeavour to induce a quicker pace in producing a workforce with PhD and Doctoral degrees. The paper concludes by presenting a conceptual framework for Human Capital Development for the institution.

**Human Capital Development in the Malaysian Context**

Human capital often refers to the sum total of individual intelligence built upon the acquisition of skills, training and educational experience over a life time. The Minister of Human Resources of Malaysia, in his speech at the International conference on “Developing Human Capital – the Way Forward: Managing Human Capital in the Globalised Era”, identified the two component of human capital: accumulated wealth used for further production of goods and services, and the aggregation of investments in activities that enhance the individual’s productivity in the labour market. He went on to analyse that “since the level of skills an individual acquires through his lifetime depends partly on the worker’s initial abilities, these initial abilities became an important aspect of the human capital development concept of the country”.

The workers’ initial abilities are largely determined by the amount of education (Becker, 1964) and the type of firm-related training (Becker, 1964) the worker receives. This human capital theory is accepted by Malaysia as can be seen in the country’s Vision 2020, a long term plan for developing Malaysia into a developed country,

> We cannot but aspire to the highest standards with regard to the skills of our people, to their devotion to knowledge and knowledge upgrading and self-improvement, to their language competence.”

**Vision 2020.**
The above also sets the direction for development of institutions of higher learning in Malaysia.

**Private Institution Participation in Provision of Higher Education**

Malaysians enjoy free education from primary school all the way to secondary school at pre-university level. Thus the choice of individual upgrade through furthering education and training arises at post-school or college level to undergo foundation studies, diploma and degree levels, or to attend special skills training at vocational colleges. These are the institutions of higher learning. Such institutions are composed of two groups, those which are funded by the government commonly known as the IPTAs and those which are privately funded know as the IPTSs. By the end of 2007, the total numbers of such institutions are as in Table 1.

<table>
<thead>
<tr>
<th>Types of Institutions</th>
<th>IPTS(Public)</th>
<th>IPTS(Private)</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>University Colleges</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Polytechnic</td>
<td>11</td>
<td>24</td>
</tr>
<tr>
<td>Community College</td>
<td>0</td>
<td>36</td>
</tr>
<tr>
<td>Branch Campus</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>College</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>22</td>
<td>80</td>
</tr>
</tbody>
</table>

Source: 9th Malaysia Plan p.244; * MOHE website (23/08/08)

The latest figures revealed by MOHE is now 517 IPTS. A point to note is that the number of private institutions have reduced for 640 in 2000 to 517 in 2008, a decrease of 123. This decrease in the number of IPTS could be due to merging of the smaller institutions.

The 9th Malaysia Plan also has a targeted focus on student enrolment at each level of studies as in Table 2: with forecasts on the expectations from the public institutions as well as the private institutions of higher learning by 2010.
TABLE 2: ENROLMENT OF STUDENTS IN TERTIARY EDUCATION INTUTIONS
BY LEVEL OF STUDY 2005-2010

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>23,816</td>
<td>81,754</td>
<td>105,57</td>
<td>37,931</td>
<td>94,949</td>
<td>132,88</td>
<td>141,290</td>
<td>143,480</td>
</tr>
<tr>
<td>Diploma</td>
<td>91,398</td>
<td>117,056</td>
<td>208,45</td>
<td>98,935</td>
<td>131,428</td>
<td>230,38</td>
<td>285,690</td>
<td>188,680</td>
</tr>
<tr>
<td>1st Degree</td>
<td>170,794</td>
<td>59,932</td>
<td>230,72</td>
<td>212,32</td>
<td>110,591</td>
<td>322,91</td>
<td>293,650</td>
<td>134,550</td>
</tr>
<tr>
<td>Masters</td>
<td>24,0076</td>
<td>2,174</td>
<td>26,181</td>
<td>34,436</td>
<td>4,202</td>
<td>38,638</td>
<td>111,550</td>
<td>5,770</td>
</tr>
<tr>
<td>PhD</td>
<td>3,359</td>
<td>131</td>
<td>3,490</td>
<td>6,742</td>
<td>140</td>
<td>6,882</td>
<td>21,410</td>
<td>270</td>
</tr>
<tr>
<td>Total</td>
<td>313,374</td>
<td>261,047</td>
<td>574,42</td>
<td>390,38</td>
<td>341,31</td>
<td>731,69</td>
<td>853,590</td>
<td>472,750</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2010</th>
<th>2005 Total</th>
<th>2010 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>24.58%</td>
<td>30.7%</td>
<td>27.38%</td>
<td>38.5%</td>
</tr>
<tr>
<td>Diploma</td>
<td>218.65%</td>
<td>134.55%</td>
<td>8.27%</td>
<td>38.5%</td>
</tr>
<tr>
<td>Total</td>
<td>428,200</td>
<td>117,320</td>
<td>428,200</td>
<td>117,320</td>
</tr>
</tbody>
</table>

Source: 9th Malaysia Plan p.245; % increases compiled by the author

From the rates of increase in student enrolment, the private institution registered an average rate of 30% growth between 2000 to 2005, and to a further increase of 38.5% between 2005 to 2010. This modest trend indicates that the government focuses on quality of education in producing graduates that meet demands of the country’s workforce. It is also worthy to note that out of the 1.3 million total enrolment, one third of it went to private institutions -- 35.6% or almost half a million. Put differently, the government targets that for every 2 students that the government takes in under the public institutions, there should be sufficient places in the private institutions to take the third student. Thus set the responsibility of private institutions on the country’s endeavour in the development of human capital. In other words, the private institutions for higher education are expected to provide 33% of learning places to the college-going population.

What is the size of this college-going population? Table 3: identifies 3.5 million Malaysian of ages between 17 and 23 years of age. At the survey conducted by the Ministry at end 2007, only 893,228 are registered in domestic colleges with another 54,915 studying abroad. Of those studying locally, 382,997 were pursuing their studies in public institutions; 305,800 in private colleges and the remainder 204,441 attending training centres and other courses in non-college institutions.
These figures are disturbing as there is another 2.5 million youths of this age group yet untapped. How should both the public and private institutions reach them?

In the same Table 3: the total number of graduates on 2007 was 212,304 with almost equal numbers graduating from public and private institutions: 85,448 from public colleges or universities and 83,431 from private ones. From a marketing perspective, the task ahead is how to indulge the 2.5 million youths yet not involved and at the same time increase the graduation rate of those who are already in some kind of programme.

**Taking On the Function of Human Capital Development**

From 2002 to 2007, private institutions of higher learning have been producing a constant number of some 20,000 graduates at degree level. Graduates at diploma level averaged at 50,000 until 2005 where it registered a marked drop to merely 20,000 to 30,000. As mentioned earlier, 2005 also saw a decrease in the number of private colleges.

**TABLE 4: DEVELOPMENT OF PRIVATE EDUCATION FROM DIPLOMA TO DOCTORATE**

<table>
<thead>
<tr>
<th>Diploma</th>
<th>Registrations</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enrolment</td>
<td>129,929</td>
<td>131,947</td>
<td>130,265</td>
<td>101,311</td>
<td>123,937</td>
<td>144,703</td>
</tr>
<tr>
<td></td>
<td>Graduated</td>
<td>55,988</td>
<td>57,623</td>
<td>56,080</td>
<td>21,186</td>
<td>36,321</td>
<td>28,402</td>
</tr>
<tr>
<td>% Increase/previous yr</td>
<td>103%</td>
<td>97%</td>
<td>38%</td>
<td>171%</td>
<td>78%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree</td>
<td>Registrations</td>
<td>Enrolment</td>
<td>Graduated</td>
<td>% Increase/ previous yr</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>---------------</td>
<td>-----------</td>
<td>-----------</td>
<td>------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>28,626</td>
<td>28,626</td>
<td>67,062</td>
<td>20,255</td>
<td>88%</td>
<td>88%</td>
<td>88%</td>
</tr>
<tr>
<td></td>
<td>36,279</td>
<td>90,631</td>
<td>105,325</td>
<td>17,786</td>
<td>103%</td>
<td>103%</td>
<td>103%</td>
</tr>
<tr>
<td></td>
<td>40,742</td>
<td>101,395</td>
<td>18,385</td>
<td>20,294</td>
<td>110%</td>
<td>110%</td>
<td>110%</td>
</tr>
<tr>
<td></td>
<td>34,676</td>
<td>101,395</td>
<td>20,294</td>
<td>27,176</td>
<td>134%</td>
<td>134%</td>
<td>134%</td>
</tr>
<tr>
<td></td>
<td>43,490</td>
<td>124,071</td>
<td>23,648</td>
<td>23,648</td>
<td>87%</td>
<td>87%</td>
<td>87%</td>
</tr>
<tr>
<td></td>
<td>43,625</td>
<td>140,699</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled by the author from data collected from Ministry of Higher Education, Malaysia 2008

In 1999, the government directed public universities to almost double it intake from 45,000 to 84,000 students. Recognising the important role played by private institutions, the Government liberalised the teaching of foreign university programmes in private institutions. Foreign universities were allowed to franchise their programmes, followed with twinning programmes 2+1 and 3+0 programmes. All these were brought about by the passing of the Private Higher Education Act 1997. This has indeed increased opportunities for higher education to the general public. With availability, next popped the issue of affordability and accessibility to higher education.

The tuition fees for studying in private institutions is much higher than those in public institutions. A similar course of studies in a private institution can cost ten time, or even more, than that charged by the public institutions. To stimulate affordability, the Government introduced the PTPTN - a loan scheme which is also made available to student studying in private institutions as well.

In 2006, the Ministry of Higher Education published a Report on “Towards Excellence”, a report by the Committee to Study, Review and Make Recommendations Concerning the Development and Direction of Higher Education Malaysia. In his message for this Report, the Minister of Higher Education reiterated that the Government of Malaysia’s expectation of institutions of higher education to be capable of producing “cohorts of quality human capital who are fully competent to make outstanding contributions to the development of the nation.” (MOHE, 2006 p.xv). This report literally stamped the function of human capital development on private Institutions of Higher Education in Malaysia, irrespective whether they are publicly funded or privately funded.

**SEGi University College As Human Capital Developer**

SEGi was conferred the status of University College on 30th June 2008. At that time, it had an enrolment of 4,000 students with programmes ranging from Foundation courses, Diploma courses, Degree and Postgraduate Degree programmes. The author had been involved in lecturing MBA modules at SEGi Colleges since 2003. Upon joining SEGi University
College, she was appointed the Director of Centre for Continuing Education. In May this year, she was also tasked to oversee the Faculty of Business, Accountancy and Management as Acting Dean. Looking at those eager heads and hands popping up and down, they represent some 2,000 individuals bubbling with human capacity to contribute towards a nation. The rest of this paper will outline two challenges encountered in this endeavour.

**Contextualisation of Course Content**

In a recent government report of Small and Medium Enterprises, it pointed out that 99.2% of the establishments in Malaysia fall under the SME category. Thus the Business Faculty of SEGi University College and the Centre for Continuing Education can safely say that the programmes of study of these two faculties offer, whether they are on business administration, management or accountancy, these knowledge will be form the initial ability of the labour force to fill positions the SMEs. Some may join larger corporations and even MNCs.

As survey conducted by the University of Malaya in 2001 on what industry wants out of business school graduates, one of the important complaints was that “executives were not able to solve management problems” as they leave business schools. It was reported that industry would like universities to focus on “recruiting the best candidates, and the corporations will in turn assist in the process of converting them into effective managers”. This reflects the clear desire from the corporations to commit into helping to develop quality graduates, while the institution of higher education were given a ticking-off that the quality of graduates currently they produced fall short of industry expectation and demands.

How should this situation be remedied?

One method for this to happen is to ensure that the three components of learning need to be present: viz. the course content, the trainer and the candidate. As analysed earlier, there is little choice on the part of the institution of Higher Learning in the selection of the candidate or student. The private institution of higher learning is more concerned about seeking, attracting and indulging these youths of college-going age with little choice in selection of who do the want. This is especially true with privately funded institutions where bottom line forms the order of the day. Then, the next step would be to indulging them into enrolling study programme. What content should be included in the module to produce the appropriate curriculum to attract them?

Since the introduction of the Lembaga Akreditasi Negara, now known as MQA of Malaysia (Quality Assurance Agency) under the Ministry of Higher Education, curriculum development for degree courses by private institutions of higher learning is closely watched.
by this agency. In order to comply, institutions with partner with overseas would closely follow that of the partner universities. This gave rise to having to the problem of much foreign content should be taught in the module. One example was a module on public sector management for an undergraduate programme which the author was appointed as Associate Lecturer. Passing this module was part fulfillment for a degree in Business Management with a partner university from the United Kingdom.

Problems arising from this module began with the availability of textbook. From the name of the module, it could be envisaged that the course content evolved around the structure of the British government, starting from the parliamentary system, its judiciary, the legal systems and the local government systems. One of the main components of the system was on the New Public Service System of United Kingdom which requires the student to have a thorough understanding of the local government structure and system of United Kingdom. What implication has these on the Malaysian students?

At the first class, it became evident that the students had zero knowledge of not just the United Kingdom; they also had no knowledge of the Malaysian government system as well. It was not a surprise that this module registered a 50% failure rate. Worthy of mention here was the general elections of Malaysia this year which resulted in the termination of the services of 14,944 village headmen in five states of the country which were taken over by the opposition party. This was new even to the author who researched into public sector management in Malaysia. Thus the question, was the inclusion of the United Kingdom course content a wise move? Both the students and the faculty lecturer were of the opinion that it would be more beneficial if the UK content was replaced with local content.

Another example could be found in a module for the MBA programme. At SEGi University College, majority MBA classes were held during weekends and were attended by part-time students who hold full-time jobs during weekdays. On a module which compared business law between Australia, China and a European country, the students were totally confused as they tried to visualise local customs as the rule law was a part of the fabrics of social behaviour. The German language is not one of the three official languages of WTO, viz. English, French and Spanish. At the Chinese front, how has China’s ascent to the WTO and the latter’s rule-based system affected the country’s domestic agreements and domestic law? Recent years have seen Chinese insisting that the Chinese language be used as the language of prevalence in bilateral agreements. At the same time, WTO is still trying to rationalise China as a contracting party in these arrangements. More important, a Malaysian student reading those pages would first ponder what would his own country’s position be should he be faced with such a predicament. Thus gave rise to the need for contextualization of course content.

Local case studies

Today, case studies have become an important part of teaching structures. They bring real life to the classroom: demonstrating concepts in application to actual conditions in full
demonstration of theory, and with posterior analysis incites the desire to learn in students. In a recent episode of teaching global issues on employment relations, the author had to analyse a case study from the United Kingdom to a class of international students. A student from a small island nation in the east had problem in positioning his values on trade unions and collective bargaining - issues which were still underdeveloped back home in the island state.

Of special mentioned are the lack of case studies to illustrate strategic management concepts, international strategic human resource management, strategic change management, project management and many others. It is not to say that developing countries are at a bottleneck of development, the author identifies the source of this problem to the lack of documentation of such developments. Recommendation 66 on the MOHE Report on “Towards Excellence” proposed a final year student spends a minimum of six (6) months in attachments with a business enterprise related to his course of studies, in particular for those course where practical experience is compulsory.

**Recommendation 66:**

“The Committee recommends that internships be made mandatory for a minimum period of six months for undergraduates in science and technology, students in pre-diploma, vocational and technical courses, and other disciplines that require practicum.” (Source: MOHE 2006, Towards Excellence, p.xvi)

Another directive from the Government which can be said to be transformational change in studying at business courses is the compulsory element of at least doing one research project in a three-year degree course. The author recently came across a situation where a class of twenty came up with ten proposals to investigate into the customer satisfaction in drinking mineral water.

Such a situation sends to the author’s mind the intentions of The Global University of Islamic Finance (INCEIF) in their efforts to increase the work force in Islamic Finance, called for a “renewed vision” on Islamic finance. It called for seeking out not just the right type of teachers to train the right type candidates, but also using an appropriate curriculum. The author recommends that like processes of thinking be applied in the teaching of all subjects at university and college levels. A classic example of applying the wrong case study results in developing countries was the country which set up its first modern superstore using foreign consultants some 20 years ago. On the grand opening day the mass of customers found the store shelves much too high for Asian stature. Much improvements in retailing technology have been made through the years and height is no longer a problem in stores. However, what is still being ignored are the thousands upon thousands of lessons not learnt year after year.
This brings one back the definition of human capital development: which is defined as, “the sum total of individual intelligence built upon the acquisition of skills, training and educational experience over a lifetime”.

There is thus the need for both institutions and the corporations to work together in developing the learning organizations. Recommendation 63 of the Report details what is needed to be done.

**Recommendation 63:**

“The Committee recommends that the higher education curriculum in the country be drafted and implemented in order to:-

Develop human resources who can think critically, are able to present their ideas to society and translate and manage these ideas innovatively to benefit themselves and society;

a. Develop human resources who are able to comprehend issues in the context of societal realities;

b. Develop human resources who are literate not only in reading, writing, and mathematics but also in IT. They should organise the skills of organising, synthesising, analysing and using knowledge to solve newly emerging problems in society;

c. Develop human resources who are creative, innovative, risk takers, willing individuals and team players, and who have the zest for entrepreneurial commitment;

d. Develop professionals who are life-long learners.

And,

**Recommendation 65:**

“The Committee recommends that representatives from the corporate and industrial sectors be involved in the curriculum development process especially for the professional and science-based disciplines. They should be involved in teaching and research. “

Handing down recommendations or directives of this kind is easy. However, who will implementation these recommendations? And the latest repetition by the Government that all institutions of higher education should re-examine the procedures in order to produce in 60,000 (original recommendation was 100,000 per Recommendation 130) graduates with Doctors of Philosophy to stimulate the culture of research in the country,
Recommendation 130:

“The Committee recommends that MyBrain 15 be designed and implemented for the development of national human capital. It should be planned and implemented towards producing 100,000 Ph.D. graduates within the next 15 years.”

From the perspective of an institution of higher learning, logistics in manpower immediately becomes a concern. At current pace, the shortest time taken for a person to graduate with DBA is 3 years and the longest time allowed for PhD is 9 years. The government had straight away responded with handing out 1,500 scholarships for students to study abroad, presumably their researches will be conducted back in Malaysia. It is too early to measure the rate of commercialization of these researches conducted. However, the performance of the predecessor program, IRPA, should provide much lessons for all to learn.

Inculcating A Culture For Research:

To achieve the above objectives of the government, participation from the industrial sector is a necessity. The author is certain that such necessity is evident to both parties. In one of her recent lectures on Managing Business Research to a group of part-time MBA students, a total of 34 business research proposals were gathered. Although the students worked through all these proposals industriously and scored very good grades at the end of the semester, none were willing to involve corporate times, expenses and manpower to really conduct any of the proposals they had so meticulously spent four months to perfect. Being business proposals, every one of these proposals were carefully thought out based on individual business environments of the students. These research proposals were one final step away from the researches that the country needed. Why did it stop short of implementation?

The author is of the opinion there needs to be developed a culture for research. The above mentioned abeyance to conducting the actual research could be due to one to the follow factors:-

i. It was a great semester to the students, but there were more semesters to undergo before completing the MBA journey. In short who financed their MBA studies?

ii. Research needs time. Will the company devote time for research like what they learnt about in textbooks such as 3M?

iii. Research needs to commit on expenses. Who will this come from?

iv. Business researches can be completed by a single researcher. What if it is a technological research? Where will the additional resources come from? Is the organization ready to
contribute these resources?

Countries, developed and developing, have been talking about developing the culture for research of nations, year in and year out. Students have been told en-mass (degree level students also need to complete research papers) they have to think and research, but the actual act of research has not differed from the Bill Gates style of women’s club, mothers’ and family members’ collection of funds in contribution towards active research. All said, the Bill Gates style of struggling alone looking for funding and support to conduct research into an individual passion still appear to be the order of the day.

The author believes that answers need to be found to the four questions above before a nation can say it is developing a culture for research.

The author proposes the following:-

a. That all research projects or practical exercises in project management must be conducted during the final semesters

b. Students be given preliminarily insights into what the final projects would be all about way before they arrive at the final semester.

c. The project that the students will conduct must be related to the corporation where it will be attached for their internship

Figures in Table 5: gives an idea on the number of research projects that can be generated from the number of graduates. The author proposes a task force to be established to bring to life the very thought of developing a culture for research among the students.
TABLE 5: DEVELOPMENT OF PRIVATE EDUCATION FROM DIPLOMA TO DOCTORATE

<table>
<thead>
<tr>
<th></th>
<th>Registrations</th>
<th>Enrolment</th>
<th>Graduated</th>
<th>% Increase/previous yr</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002</td>
<td>2003</td>
<td>2004</td>
<td>2005</td>
</tr>
<tr>
<td>Diploma</td>
<td>62,701</td>
<td>65,562</td>
<td>69,573</td>
<td>45,002</td>
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<tr>
<td></td>
<td>129,929</td>
<td>131,947</td>
<td>130,265</td>
<td>101,311</td>
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<tr>
<td></td>
<td>55,988</td>
<td>57,623</td>
<td>56,080</td>
<td>21,186</td>
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<tr>
<td></td>
<td>103%</td>
<td>97%</td>
<td>38%</td>
<td>171%</td>
</tr>
<tr>
<td>Degree</td>
<td>28,626</td>
<td>36,279</td>
<td>40,742</td>
<td>34,676</td>
</tr>
<tr>
<td></td>
<td>67,062</td>
<td>90,631</td>
<td>105,325</td>
<td>101,395</td>
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<td></td>
<td>20,255</td>
<td>17,786</td>
<td>18,385</td>
<td>20,294</td>
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<tr>
<td></td>
<td>88%</td>
<td>103%</td>
<td>110%</td>
<td>134%</td>
</tr>
<tr>
<td>Masters</td>
<td>2,035</td>
<td>1,602</td>
<td>1,497</td>
<td>1,680</td>
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<tr>
<td></td>
<td>5,019</td>
<td>3,048</td>
<td>2,981</td>
<td>4,849</td>
</tr>
<tr>
<td></td>
<td>571</td>
<td>410</td>
<td>423</td>
<td>1,080</td>
</tr>
<tr>
<td></td>
<td>72%</td>
<td>103%</td>
<td>255%</td>
<td>147%</td>
</tr>
<tr>
<td>Doctorate</td>
<td>57</td>
<td>43</td>
<td>61</td>
<td>170</td>
</tr>
<tr>
<td></td>
<td>197</td>
<td>86</td>
<td>108</td>
<td>598</td>
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<td></td>
<td>4</td>
<td>45</td>
<td>46</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>1125%</td>
<td>102%</td>
<td>102%</td>
<td>109%</td>
</tr>
</tbody>
</table>

Source: Compiled by the author from data collected from Ministry of Higher Education, Malaysia.

The SEGi Framework for Human Capital Development:

A question is often asked if private institutions of higher education even have a plan for human capital development? The chart below (Fig. 1) graphically depicts the increase of graduates from these institutions between 2003 and 2007.
Between 2003 and 2004 the increase of students graduating in the diploma and degree levels is modest, and registering a drop in 2005 and then picking up again in 2006. As for masters and doctorate programmes there is a steady increase from 2003 up to 2006.

2007 saw a fall for programmes at all levels. For the doctorate programmes, there were only 17 who graduated. Even if it takes 5 years from registration to graduation, the 17 who graduated was less than half of number of registrations in 2003 (43 registered candidates). The number of doctoral candidates who graduated in 2007 was only 33% of 2006.

Thus the question, are these caricatures by accident or planned? Fig.2 below is the author’s proposed Human Capital Development Framework for SEGi University College.
This framework anchors on organisational policy, guided by national policy. As the business of SEGi UC directly deals with human capital development, its R&D policy is guided by the HCD policy of the university which includes staff development as well. Staff development is a very important component to a university. Faculty members need to be consistently upgraded in the levels of their work. If not, the faculty member may be required to supervise more than 5 DBA or PhD candidates at any only time. (The Ministry of Higher Education had proposed 5 as the minimum number in order to deliver 60,000 PhD holders in 15 years.)

As a privately funded enterprise, the firm’s triple bottom line is always being watched. Productivity, customer satisfaction and quality are the key determinants of the framework to ensure these academic output meets industry demands in terms of quality and fit.

CONCLUSIONS

This paper has highlighted a few of the human capital development challenges faced by a private institution of higher learning in Malaysia. All said, the most important challenge is still the institution’s ability to train a group for academicians who can excel in both administration and management, especially the ability to strategise, lead and be able to identify opportunities for growth and to take calculated risks in developing a business. The academic industry is in need of this group of academic elites who can take on the education
industry as a business if the country continues to depend more and more on contributions from the private sector for it to become an education and knowledge hub.

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MANAGEMENT DEVELOPMENT PRACTICES TO INCULCATE MANAGERIAL SKILLS AND COMPETENCIES OF FIRST LEVEL MANAGERS IN A PRIVATE EDUCATIONAL INSTITUTION IN MALAYSIA: A CASE STUDY.

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ABSTRACT

This study focuses on the effectiveness of the management development practices employed by a private higher educational institution to inculcate managerial skills and competencies in their first level managers. The research results provide an insight into the factors influencing managerial competencies and the identification of a void, ‘Competent Gap’, which can be resolved. A Model of Managerial Competency highlights the variables to be considered in identifying the skills and competencies of first level managers and methods employed to develop them is proposed. A process for Management Development Practices to ensure high performance of managers prevails, even in times of uncertainties caused by the changing environmental landscape, is presented.

Management development practices to inculcate managerial skills and competencies of first level managers in a private educational institution in Malaysia: A case study.

INTRODUCTION

Institutions of higher learning have a major proactive role to produce a consistent flow of knowledge workers with employable skills to meet the human resource requirements both in the public and private sector. As providers of educational services, these institutions are frontliners in the teaching of management and other disciplines; they are expected to be in the forefront in their practice of management concepts as well. Their management development experience can be translated into valuable lessons to teach and train organisations in the corporate sector. More research is required to delve deeper into the issues and concepts of managerial effectiveness amidst changing ways of doing business.
Managers justify their existence in organisations by demonstrating their value to the organisation by possessing the necessary skills and competencies to carry out management tasks as desired. Often this may not be the case due to various factors such as the dynamism of organisations and the environment they operate in. Many organisations are using management development practices to enhance the competencies and capabilities of managers to cope with increasing complex business challenges. Management development has become one of the drivers of organisational transformation and renewal (Storey, 1992). In the 2000s, CIPD (2000) survey results shows there is a renewed interest in relating management development to organisational strategy to increase a company’s sustainability, profitability and competitive advantage. The results of possessing higher skills and expertise have enabled managers to respond effectively to current business challenges.

**Research Details**

The aim of the research is to analyse the effectiveness of the management development practices in inculcating managerial skills and competencies needed by the first level managers. The data and information required were gathered from a selected educational institution providing higher learning in the private sector. This research reviewed the strengths and weaknesses of the methods the educational institution had employed to assess management development needs of the managers, deliver and evaluate training to improve the skills of the first level managers. Gaps, if any, in the management development practices and its effectiveness in providing the necessary skill set and skill mix for the first level managers were also investigated.

The research questions formulated for this study are:-

i. What kinds of management development practices are employed by the educational institution?

ii. How effective are the management development practices of the educational institution?

iii. How are management development needs of the first level managers assessed?

iv. How appropriate is the training content and delivery approaches in achieving management development objectives?

**A Literature Review of Management Development**

Business strategies and methods of operations have always been evolving and particularly so in recent years. One of the paradigm shifts is the growing significance of managerial roles and performance as key components of achieving business success. Organisations realise that management expertise is becoming more critical to meet new organisational demands and to ensure accomplishment of organisational strategies. Organisations need to develop managers
who are competent in managing human assets as well as flexible and innovative to manage business, financial and technical issues in the workplace. In this respect, organisations must be prepared to invest in management training and development.

Management development is a generic term comprising education and training of managers and encompasses both formal and informal processes (Garavan, Barnicle & O'Suilleabhan, 1998). Mumford (1993) views management development as a continuous process where managers learn through informal experiences. On the other hand, Doyle (1995, 2000) applies systems theory to explain management development process perceiving it as a subsystem that exists within the perspective of the main organisation system. Operating as a subsystem, management development provides an overall holistic integrated framework to develop managerial skills. Management training and education are important components in a management development programme but they are not management development per se (Doyle, 2001). He explains that education is to increase the managers understanding of the practices of management whereas training is more specific and short-term to teach managers to perform on their jobs more effectively. Bunning (2000) identifies in his research that one of the four 'must' methods to develop effective first level managers is to implement training and development as an on-going process. Wightman and McAleer (1995) also share similar view. They find that first level managers were given the most technical training (8.8 days per annum) but least managerial training (5.1 days) compared to middle or top managers.

In Malaysia, the importance given to training is evidenced by the setting up of the Human Resources Development Fund (HRDF) which was launched in 1993. By 1995 the fund had amassed RM88 million with the bulk of the monthly contributions coming from the manufacturing sector. Other service industries including education institutions can also contribute to the HRDF (Saiyadain, 1995). His studies show that Malaysian organisations spent 4.65 percent of their managerial payroll on training. Malaysian organisations do not lag behind in training expenditure compared to their counterparts in United States (Rozhan, 1998). His research finds that service firms in Malaysia conducted a mean of one hundred and fifty-two hours of training annually as compared to one hundred and sixteen hours for manufacturing firms. Top management executives in the organisations in the United States spend an average of only fifty-one hours in annual training. (Olian, Durham, Kristof, Pierce & Kunder, 1998)

In-house training is the preferred form of management development in Malaysia as indicated in a survey of two hundred and thirty-five organisations (Hamid, Mohd Salleh, Muhamad & Ismail, 1987). The other method is to send employees for training in local management institutions and universities.

Strategic planning in an organisation influences management training. When there is no formal organisation policy on management development in an organisation, the tendency is that ad hoc decision and insignificant amount of training is organised for the managers (Thomson, Mabey & Storey, 1998). Their research incorporates a large scale survey on the
management development practices in organisations in the United Kingdom in 1996. The result reveals that managers chalked up a mean of 6.5 and 4.6 training days per annum for organisations with and without a policy statement respectively. Organisational decisions and responsibilities for management development is the most important influence on the higher incidence of managers undergoing training as compared to other factors such as organisation size and sector (Mabey & Thompson, 2000).

Beardwell and Holden (2001) argue that management education and training are not development activities by themselves though they are essential components of management development. Education is an extension of learning and training is a short-term task to teach managers skills to effectively perform in their jobs. They agree with Mumford (1993) that management development incorporates a wider perspective of the learning process including informal and work experiences. Management development should be integrated with other organisational systems and tools; managed within the human resource infrastructure and be a part of the overall organisational strategies. Increasing work ethics, cultural influences, organisational structures, new technology and working practices affect management development practices in any organisations (Beardwell & Holden, 2001; Doyle, 1995).

Management Development Needs Analysis

Roberts and McDonald (1995, p.18) aptly provide the reason for training and development as "the need to inculcate and develop human values and skills that equate with product and service offerings that reflect and reinforce the new market rationale which is to produce world beating products at bargain prices". The research findings of Poon and Othman (2000) conclude that the process of effective management development entails starting from conducting a proper training needs analysis, delivering approach to maximise understanding of training content and properly implementing the training evaluation to ensure transfer of managerial skills.

Diagnosing the development needs of managers used to be ad hoc and based on the observation of the superior which is often subjective. A training needs analysis (TNA) is necessary to identify problems which can be resolved by training and those requiring other mode of solutions (Wright & Geroy, 1992). Traditionally the training needs analysis is focused on job behaviour and task analysis with the information coming mainly from annual performance appraisals. Once the need is agreed upon, a proper developmental programme is worked out to benefit the individual managers and to achieve organisational objectives. The research of Saiyadain and Juhary (1995) revealed that Malaysian managers are allowed to indicate their own training needs. Another favourable method to identify training needs is performance appraisal. In a similar manner, the private companies in the United States also practice the use of performance appraisal (Digman, 1980; Herbert & Doverspike, 1990).

Delivery Strategies and Content
Longenecker and Fink (2001) conducted a research on four hundred and thirty-three managers from manufacturing and service industries. The findings illustrate that management development needs of managers are not fully addressed by the organisations. Formal management development education may seem to be the easiest path to improve management performance but it is rated ineffective by managers (Roberts & McDonald, 1995; Doyle, 2000). The weakness of formal programmes is often attributed to the programme contents that emphasised on past problems rather than anticipating future problems. The information taught during the training session is usually generic and difficult to apply to specific industry. Furthermore, there is a lack of applications to transfer the knowledge learnt into practical behaviours on job. In Australia's Karpin Report (Schaafsma, 1996), an average of fifty percent of the managers interviewed cited job rotation, mentoring and coaching on the job as well as on-the-job experience as the top most effective management development practices. This is also supported by Paauwe and Williams' study (2001a, 2001b) of management development issues in Netherlands. In addition, they emphasise the use of real life problem solving in real time with real problem projects to ensure that management development is effective.

Management Training Evaluation and Transfer

Analoui (1996) suggests that superiors need to provide support to their subordinates in the workplace after training has taken place to ensure that the transfer of the learning is carried out. Transfer of learning is defined by Garavaglia (1993, p.63) as 'the effective and continues application to trainees’ jobs of the knowledge and skills gained in training'.

Doyle (1995) observes that systematic evaluation of management development seldom takes place in an organisation even though most organisations recognise that management development constitutes a substantial expense of the annual budget. Lack of evaluation is not the exception. Studies in the west have also concluded that training costs are high and advocate the development of strategies to overcome the obstacles in accomplishing effective management development (Mole, 2000; Bees & Porter, 2001). Little has been done to evaluate the effectiveness of training in Malaysia (Saiyadain, 1995).

Most organisations will acknowledge that training evaluation is necessary to determine whether management development has been effective in meeting the needs of the participants and the organisations (Garavan, et al., 1998). In the study of management development in two organisations, Unilever and Royal Dutch Shell, there was no mention of management development training evaluation in their reports (Mahieu & Stuart, 2001; Reitsma, 2001). The absence of evaluation implies that either the researchers thought evaluation was not important or it may be too complex an issue to deal with. The reluctance to evaluate can be explained by Easterby-Smith (1994) who views evaluation as a complex process. This process inherently will involve issues of power, politics, value judgements and human interests. Paauwe and Williams (2001a) also agree that evaluation is a complex process which few organisations conduct effectively.
The management development process must be evaluated to determine its cost-effectiveness and to aid organisational learning and improvement. Rather than relying on past practice of evaluating at the end of the training session, the evaluation of management development needs to be linked with an organisation's goal attainment and individual's daily work performance in order to be effective. The focus of the managers' development is that the end result should be the managers' ability to perform and deliver predetermined outcomes. Management development efforts have to be integrated with an organisation's strategic efforts and support systems.

**Discussion of Case Study**

Tipps Institute, a subsidiary of a public listed company, is in existence for nine years with a student enrolment of more than seven thousand. The Institute conducts diploma and degree courses. The Bachelor and Masters programmes are provided in association with overseas partner universities. The set-up of Tipps Institute is rather unique in the education industry. Instead of traditional terms used to designate heads of department and structuring the organisation according to academic faculties, the organisational set-up of Tipps is more like the corporate sector with managers heading functional sections such as operations, academic, information resources, technical, administration, human resources and accounting. All section heads are categorised as first level managers. All managers are treated equally. Preference is not shown according to authority, status, seating arrangement or benefits although the tenure of managers in the institute ranges from a few months to eight years. All first level managers have subordinates reporting to them and they in turn report to the managing director who is answerable to the board of directors. There are only two managerial levels in the organisation hierarchy. The working climate among the managers is cordial and submissive. In Tipps Institute, the espoused theory is consensus decisions are made but the grounded theory is that the authoritative managing director has the last say.

Management development practice takes the form of formal academic pursuit. Managers are encouraged to pursue the master degree programme offered by the Institute. The incentive given to the staff is full sponsorship for tuition fees with a conditional two-year contractual employment bond. The other method to develop the managers' capabilities is on-the-job training when managers are given special projects to implement. The policy of the Institute is that managers should handle their own personal development and career advancement plan. Since the organisational hierarchy is two-layered, the managers perceive there is little incentive to plan for career advancement but instead they look forward to monetary rewards in the form of bonuses and increments. Performance rewards have been inconsistent over the last two years and bonuses were often delayed causing substantial dissatisfaction to the managers and staff. The management has planned to relocate the Institute to its own campus within a year. As a result of the impending expansion, the managing director decided that
managers need further training. The present managerial skills are not effective enough to handle the problems the Institute is facing. One frequent problem plaguing the Institute is the high number of complaints from the students. Another problem is the decline in student numbers.

The Institute started the training needs assessment exercise with the engagement of an external consultant. The consultant conducted a training needs assessment through formal interview sessions with individual managers to diagnose their management skills and competencies. The results of the confidential interview conducted by the consultant in Tipps were not supposed to be disclosed to any managers. Assurance was given that neither the managing director nor the board of directors would have access to the information collected during the interviews. The next step was to address the weaknesses exhibited by the managers. A two-day workshop was organised and the venue chosen was to ensure that formal training took place away from the workplace, allowing the managers to have full concentration on the event.

During the workshop for the first level managers, the mission, objectives and strategies of the Institute were explained in depth. Special focus was given to the past glories of the Institute. At the conclusion of the workshop, no evaluation on the workshop was conducted to evaluate its effectiveness and whether transfer of skills has taken place. Some of the reasons given by managers concerned for the lack of evaluation were that participants might not give truthful answers or might provide answers which the managing director wanted to hear. However, the managers felt that real reason was the fear that answers might be filtered to the boss's ears due to the lack of credibility of the consultant. Apparently, the consultant had discussed the results of the training needs assessment prior to the training session with the managing director, thus creating a distrustful climate among the managers.

The results of the one-off workshop on management development were entirely unexpected. The managers were divided into two camps along racial lines instead of the expected co-operative atmosphere. On the exterior managers were co-operative but undercurrent and tension were felt. Surrounded by such negative atmosphere in the Institute, the managers' morale was low.

Such an occurrence is not totally unexpected as management development is often comprehended by managers especially at the first level as a way to promote and shape new effective managerial styles and methods of working. New ways and styles often create fear due to the pressure to change in order to accomplish higher performance in line with organisational development (Jackson & Humble, 1994; Doyle, 1995). Resistance to change can also occur due to lack of managerial incentives (Salaman & Butler, 1990).

Managers’ perception of what they need and what they have learnt also hinders the objectives of management development programmes; a fact supported by Roberts and McDonald (1995) and Doyle (2000). Credibility of the management development professionals and the lack of trust in them have contributed to the lack of commitment on the part of first level managers to implement the skills learnt. In the case of Tipps Institute, the confidentiality was lost as
leakage of facts to certain managers and the managing director had occurred earlier causing lack of credibility and mistrust in the consultant concerned. Managers were very careful to express opinions that top management expected to hear and the actual situation on the ground was camouflaged or covered up.

Inflexible approaches to management development can create frustrations and disillusion in managers leading to low levels of morale and motivation. In this instance, management development has become a liability to the organisation. Such liability is apparent when further consequences occurred in Tipps. Fifty percent of the managers resigned within six months of the workshop and the student enrolment declined by sixty percent during the same period. However, these phenomena may not be a direct result of the management development activity as this period also coincided with the downturn in the Malaysian economy. The student enrolment decline could also be affected by the poor economic situation and increased competition from other institutions. However, the managers interviewed had the opinion that after the training workshop, there was a period of confusion and tension. During this period, poor decisions were made, and politicking was at an all time high in the Institute.

The existence of politics in management development is a factor to be recognised and dealt with. The intense politicking is not unusual when an organisation develops high expectations from its managers. Politics is most apparent after an intensive workshop designed to upgrade managerial skills (Butcher & Clarke, 1999; Margerison, 1991). Their research show that one of the management disciplines that managers require during a period of change is to be savvy in political situations in the organisations. Decision-making in organisations is sometimes irrational and goals of the workforce may conflict with the objectives of the organisation resulting in competing situations, which are unhealthy (Harvey & Butcher, 1998). Lee (1987) argues that for managers to make things happen in an organisation they have to understand political strategies and tactics.

Top management needs to recognise the existence of politics in the organisation and manage the undertones to provide positive motivation to the managers who in turn can guide the employees into the right behaviour for the benefit of the customers. In the second paper of Tan (2003), the research results indicate that managers have to be opened in their communication and to empower subordinates. But in the case of Tipps Institute, the result of the management development activity was contrary to the objective of establishing better communication channels and co-operation among the managers.

To overcome negativity surrounding management development, Doyle (2000) proposes a systemic and relational approach to managerial development. This approach will integrate the organisation's goals and strategies in line with the development objectives of its managers. Management decision is to be carried out in the context of the organisational systems and its influences. The relational perspective views management development as a holistic activity where it is portrayed as an integral part of an organisation system. Learning and development are managed according to context and reality of managerial work instead of hiring professional external or internal consultants specialising in management development.
One of the management development practices Tipps conducted was organisational role analysis where the consultant and managing director's intention was to ensure that individual manager's role within the organisation context was clearly defined. Clear role definition is aimed at reducing overlapping efforts and confusion especially among newer managerial staff. The manager overseeing the administrative staff often clashed with the operations manager and the manager taking care of the academic programmes over the use of manpower resources. The academic manager rather than the human resource manager also carried out lecturer recruitment exercise. A review to clarify managerial roles was supposed to be goal oriented. The details of task description, responsibilities and accountabilities of each manager were clearly demarcated.

As a result of the role definition exercise, capable managers were assigned more difficult and time-consuming tasks; whereas politically savvy managers were seen to have lighter workloads. This managerial perception to the new job description resulted in suspicion, resentment and resistance. Role analysis is a delicate exercise needing special cares to deal with personal feelings of managers concerned and their perception of fairness can be enhanced if they are part of the team carrying out the exercise. This can lead to interdependence and goodwill rather than individual managers working independently and resentment-filled against top decision maker and fellow colleagues.

Lessons Learnt

Mumford (1993) stresses that piecemeal approach to management development is unlikely to achieve the objectives set out. Fragmented approaches will only result in wastage of organisation funds and time. Management development has to be part of a strategic tool incorporated within the organisation design. The type of management development practices existing in Tipps Institute is akin to that of Level two as described by Burgoyne (1988). He explains that management development at Level two is isolated and is tactical prone. Burgoyne describes six progressive levels of maturity in management development of an organisation. At the highest level, the organisation is able to strategically manage its corporate policy involving the handling of hard and soft managerial issues. The case study shows that management development will fail when there is a lack of clear guidelines and policy.

The works of Mabey and Thompson (2000) and Margerison (1991) express that a written management development policy within an organisation is a strong determinant of an effective management development practice. Furthermore, Margerison (ibid.) supports clear policies and written guidelines with set criteria on compensation and promotion, management responsibilities and job changes. A well-thought out budget for management development is good practice for an organisation to adopt to ensure effective development of managers. Guidelines show commitment of organisations to management development process. If guidelines are written in consultation with managers, the result will be enhanced commitment and ownership of the management development process.
When management development becomes a corporate responsibility and given high priority, managers tend to conform to organisation expectation and the result of management development is often positive. Managers in general would like to be more knowledgeable and skilful. Management development drawn up in line with business plans and goals give proper directions to those concerned. Practical and relevant management development practices should involve the human resource department at an early stage to ensure achieving its objectives without crisis management. Long-term planning for manpower development is strategically more viable resulting in better organisational performance. Ad hoc solutions, which lack thorough diagnosis of the problem situation, can be avoided.

Management development is a democratic process involving the managers' personal work skills and their career moves. As such, committed managers will want to take their personal and organisational development seriously. They will want to have some say on how their learning should be carried out. Good management development practice calls for the involvement of the first level managers whose skills and competencies are to be upgraded. Their co-operation solicited at an early stage breaks down barriers of future resistance. It is useful for organisations to note that managers with Masters in Business Administration qualification tend to be more critical of management development provisions due to their increased awareness of organisation strategies, business plans and operations which are influenced by their master-level studies (Mabey & Thompson, 2000.).

Many organisations try to use management development programmes to put into effect good managerial skills but often the set of management competencies identified are seldom transferred to the recipients to enable them to produce the deliverables (Meldrum & Atkinson, 1998; Doyle, 1995). Vicere and Freeman (1990) also agree that in many management development programmes there is a lack of consideration of the application of training principles, valid needs assessments and systematic evaluation. Doyle (2000) highlights that lack of senior managerial commitment towards management development has also contributed to inadequate transfer and application of knowledge and skills taught. Such malaise can also be attributed to the corporate environment, which is shaped by attitudes, values and style of the workforce.

Options for Management Development Practices in Tipps Institute

Further analysis on top management’s lackadaisical approach to management development revealed the managing director's belief that managers were recruited for their respective jobs based on their academic qualifications and the experience that they bring with them from previous job exposure. As such, additional training should not be required. However, the selection process in Tipps Institute is not foolproof. Mistakes can occur and the job portfolio for which the managers were recruited for could be modified. In most cases tasks were added on to existing job specifications, changing the original job description. Managerial job functions were swapped after one to two months of employment resulting in managers having to adapt to new job requirements, sometimes with additional subordinates to handle. This state of affairs had already existed before the management development exercise.
Negative work conditions can be changed to a positive motivator with written guidelines stating that job rotation is part of the management development practice. This will expose the first level managers to different organisational settings to enhance their productivity and knowledge of the operations in the organisation; increasing their value. A planned and systematic assessment of developmental needs of managers can ensure positive outcomes to management development exercises.

Other than the on-the-job learning and action learning as described earlier, mentoring is another approach to develop skills of managers (Garavan, et al., 1999). Tipps Institute has a mentoring programme for new recruits of foreign lecturers. The new recruits are assigned a mentor who will guide their work for the first two weeks of their employment. This programme can be extended to incorporate all staff positions including first level managers where senior management expertise can be transferred and practical guidance given especially to the managerial staff. Without doubt, such procedure can lead to lost of valuable senior management time and create a political situation due to the 'mentee' status. Written guidelines on the mentoring process reduce the disadvantages of mentoring and will enhance the employees comfort and assimilation into the new working environment. Managerial staff in Tipps Institute is also seconded to the parent company or sent to overseas partner institutions for a week or two for work exposure. Such assignments though expensive, foster better understanding between the partners and increase problem solving resulting in rapid decision-making among the overseas centres as well as with the staff in the holding company.

The case study has highlighted that the way managers developed ought to be managed pragmatically in the context of the organisational needs. Programmes for management development planned in line with the realities of strengthening managerial weaknesses and organisational processes are more acceptable than well-intentioned strategies that are put forward by hired consultants.

The analysis of Tipps Institute case study and the discussions of managerial skills and competency in previous research studies have led the author to think further on the concept of an integrated perspective of the variables involved in management development practices. The final result is the formulation of a Model for Managerial Competency. This Model is based on the discussions that managerial performance outcomes are manifestations of behaviour which are applications of the inherent knowledge and skills the managers possess (Boyatzis, 1982; Woodruffe, 1990). The organisation mission and strategies which influence the type of knowledge and skills the managers should have, are the driving force at the start of the process. As the end of the process, organisations set up criteria in performance measurement to benchmark managerial performance standards. The comparison of the managers' performance outcomes with the performance standards set by the organisation; result in a gap of skills and competencies which the managers lack and need to be addressed. The author refers to this gap as the Competency Gap.

The aim of the management practices within the organisation is an attempt to close or narrow this gap. Management development incorporates not only learning of new skills that are task-based or abilities manifested through behaviours, it takes into consideration the experiences encountered by the managers in the course of carrying out responsibilities. Reflection of
outcomes encourages the learning process which is not only derived from attending formal training courses.

Figure 1 illustrates the Model of Managerial Competency. The level of knowledge and skills a manager possesses can be discovered through functional analysis which evaluates the work-based competences of a manager. This analysis studies the ability of the individual to perform the managerial job. Performance on a job is related to the context of the job definition (Armstrong, 2001).

In view of the significance of management development practices to advance managerial skills, the Author proposes a process flow an organisation can adopt to identify appropriate management development practices for it managers.

Figure 2 shows a process flowchart for management development practices. Strategies to achieve organisation mission and objectives are put in place at the beginning of the process. The Competency Model is used to understand the processes and operations of the organisation to achieve managerial competencies. The management then use measuring tools to identify the Competency Gap. Measuring tools take the form of either psychometric tests or job-skill matching skills exercise developed in-house, purchase ready-made or customised. With known accurate information of the areas of weaknesses to be addressed, suitable management development practices can then be designed for the organisation. The result of the management development practice should be evaluated and performance of managers measured. Such a system can also be used for appraisals and annual performance compensation. Evaluation committees consisting of superiors of managers act as checkpoints that the process is managed at each phase.

CONCLUSIONS

Management development practices to increase first level managerial skills and competencies do not just happen but need to be carefully managed to suit an organisational setting. Management development once synonymous with training and education is now seen to encompass more including management experience and compensation and appraisal systems. The case study of Tipps Institute has highlighted that the way managers are developed and trained ought to be managed pragmatically in the context of the organisational needs. Programmes for management development planned in line with the realities of strengthening managerial weaknesses and organisational processes can be more accepted rather than well-intentioned strategies put forward by hired consultants.

Management development practices need to be formulated and organised in the context of the organisation objectives and strategies. However, such practices are also influenced by structures and processes, tasks and technologies, culture and politics as well as social and emotional relationships. The changing environmental landscape, increasing borderless world and more complex technology have caused managerial tasks to be more challenging. Subordinates saddled with higher education and differing values, require different managerial styles to manage and release their potential to the benefit of the organisation; causing management development to be a continuous and complicated process.
The effective management practices call for a written policy to guide the participants and the providers. Written policies will serve as guidelines for action, making management development practices transparent. Managers understand the reasons for management development and will not feel threatened by it, thus serving to release tension and confusion. Such policies need to be clearly communicated so that the staffs involved understand the philosophy and direction of the organisation.

Essentially there is a two-pronged approach to management development; that of formal and informal practices, other than selecting high achieving managers for the job during the recruitment exercise. The formal practice is based on pursuing academic courses and standardised structured training material. The informal is mainly experiential including mentoring, job rotation, on-job-training and participation in projects. Action learning is becoming a useful learning tool for organisations to develop managers compared to classroom learning. The selection of the appropriate method depends on diagnosing the management development needs of the managers and the organisation, which calls for the involvement of key people in the organisation.

An organisation has to decide which types of management development practices are best to upgrade the managerial skills. The organisation may also choose to adopt an integrated approach. Whether the organisation prefers the push or pull strategy to inculcate the necessary skills deemed fit for their managers, the management development practices have to be effective in the context of the situation. If managers have a desire to learn to be more skilful in managing, they will be better self-learners rather than being pushed to learn.

Proper evaluation will indicate whether management development is an asset or expenditure to the organisation. It will also motivate participants when feedback is noted and implemented. Evaluation shows that organisations actually care about the views of the managers. First level managers are the front-liners to develop their subordinates. Good practices to develop these managers will ensure that effective measures are handed down to the rest of the workers in the organisation.
FIGURE 1: MODEL OF MANAGERIAL COMPETENCY

Functional Analysis

Competency Analysis

Performance Measurement

Performance Standards Set

Organisation Strategic Imperatives

Knowledge & Skills

Role Definition

Ability to perform a job

Competence: Work-based

Experiences & Reflection

Feedback

Management Development

Competency Gap

Tasks

People
FIGURE 2: PROCESS FOR MANAGEMENT DEVELOPMENT PRACTICES

Organisation Mission and Objectives

Competency Model

Measuring Tools to identify competency of managers

Competency Gap Identified

Identify suitable Management Development Practices (MDP)

Narrow focus measuring tools to check results of MDP

Appraisal

Recommendation for rewards if applicable
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ABSTRACT

This paper intends to explore the status and practices of Intellectual Property in Malaysia. Chapter 1 begins with an introduction of what Intellectual Property is all about and its nature. Here we will discover the origins of IP. Chapter 2 continues with the heads of IP. Chapter 3 examines the status of Trademarks in Malaysia. Chapter 4 considers the weaknesses in the current Trademark laws in this country by a comparative analysis with laws from other jurisdictions such as Europe, Australia and the United Kingdom. Chapter 5 deals with registrability of shape marks meanwhile chapter 6 examine registrability of olfactory marks. This paper ends at chapter 7.

INTRODUCTION

The Nature of Intellectual Property Rights

As the words indicate, intellectual property is an asset product of the creativeness of the human mind, or intellect. The earliest use of the term appears to be from an October, 1845 Massachusetts Circuit Court ruling in the patent case Davoll et. al v. Brown. Justice Charles L. Woodbury wrote in that decision, "only in this way can we protect intellectual property, the labors of the mind, productions and interests as much a man's own...as the wheat he cultivates, or the flocks he rears." The term also appears in Europe during the 19th century. French author A. Nion mentions "propriété intellectuelle" in his Droits civils des auteurs, artistes et inventeurs, published in 1846, and there may well have been earlier uses of the term.

The use of the term to describe these statutorily granted rights has increased markedly in recent times, though it was rarely used without scare quotes until about the time of the passage of the Bayh-Dole Act in 1980. However, worldwide use of the term was

The first codification of intellectual property can be traced to the Jewish laws codified in the Talmud, which declared a prohibition against "Gnevat ha daat", literally the theft of ideas. The type of ideas subject to theft and further explanation may be found in the Shulkhan Arukh. Both texts precede the Statute of Anne by a few hundred years.

With the French Revolution, which followed the American Revolution, there was debate in Europe over the nature of protection for copyright and patents; those who supported unlimited copyrights frequently used the term property to advance that agenda, while others who supported a more limited system sometimes used the term intellectual rights (droits intellectuels). The system currently used by much of the Western world is more in line with the second view, with limited copyrights that eventually expire. However, the French Civil Code notion of "moral rights" has connotations similar to natural rights that are inconsistent with the U.S. tradition. The term "intellectual property" does not occur in the United States Copyright Statutes, except in certain footnotes citing the titles of certain Bills. The term used in the statutes and in the Constitution is "exclusive rights".

Intellectual property laws are territorial such that the registration or enforcement of IP rights must be pursued separately in each jurisdiction of interest. However, these laws are becoming increasingly harmonised through the effects of international treaties such as the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights, while other treaties may facilitate registration in more than one jurisdiction at a time.

Some see IP rights principally as economic or commercial rights, and others as akin to political or human rights. The TRIPS agreement treats them in the former sense, while recognising the need to strike a balance between the rights of inventors and creators to protection, and the rights of users of technology. The Universal Declaration of Human Rights has a broader definition recognising “the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author”, balanced by“ the right…to share in scientific advancement and its benefits.

We therefore consider that an IP right is best viewed as one of the means by which nations and societies can help to promote the fulfilment of human economic and social rights. Regardless of the term used for them, we prefer to regard IPRs as instruments of public policy which confer economic privileges on individuals or institutions solely for the purposes of contributing to the greater public good. The privilege is therefore a means to an end, not an end in itself. The crucial issue is to reconcile the public interest in accessing new knowledge and the products of new knowledge, with the public interest in stimulating invention and creation which
produces the new knowledge and products on which material and cultural progress may depend.

**Heads of IP**

Intellectual property and the body of law developed for its protection falls into four major classes: patents, copyrights, trademarks, and trade secrets. *Patents*, or utility patents as they are more formally known, are applied to product and process inventions. Some countries have a lesser form of patent protection, known as the utility model or petty patent that provides weaker protection for more modest and typically adaptive inventions. *Copyrights* protect creative works such as books and music. They have also been used in recent years to protect computer programs (some applications of which, in some countries, can be accorded patent protection).

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Some countries protect the work of performers, phonogram producers, and broadcasters through copyrights or specific rights called "neighboring rights." *Trademarks* reserve a portion of the language (e.g., Ford, Chevrolet, Dodge, all originally family names) or symbols (McDonalds' 'Golden Arches" or Gucci's stylized G) for the identification of a particular product or service. *Trade secrets* do not apply to specifically identified products but protect a firm or individual from the unauthorized disclosure of proprietary information. Less common types of protection include the plant patents available in the United States to protect inventions of asexually bred plants, and design patents, by which shapes such as the original Coca-Cola bottle can be protected.

Trademarks: Trademarks provide exclusive rights to use distinctive signs, such as symbols, colours, letters, shapes or names to identify the producer of a product, and protect its associated reputation. In order to be eligible for protection a mark must be distinctive of the proprietor so as to identify the proprietor’s goods or services. The main purpose of a trademark is to prevent customers from being misled or deceived. The period of protection varies, but a trademark can be renewed indefinitely. In addition many countries provide protection against unfair competition, sometimes by way of preventing misrepresentations as to trade origin regardless of registration of the trademark.

**Trade mark status & Practices in Malaysia**

A Trade Marks is a mark which distinguishes the goods and services of one trader from those of another. A mark includes words, logos, pictures, names, letters, numbers or a combination of these. A Trade Marks is used as a marketing tool to enable customers in recognizing the product of a particular trader. Malaysia adopts the 8th ed. of the NICE International Classification of Goods and Services. There are 35 classes for goods and 10 classes for services. The class headings for the 45 classes can be found on the World Intellectual Property (WIPO). However, do note that class
headings only serve as general indications of the type of goods or services and may not cover all the goods or services in the class.

A trademark serves several functions. It includes:

- **Origin Function** - A trademark helps to identify the source and those responsible for the products and services sold in the market.
- **Choice Function** - A trademark enables consumers to choose goods and services with ease while shopping.
- **Quality Function** - Consumers choose a particular trademark for its known quality.
- **Marketing Function** - Trademarks play an important role in advertising. It is normal for consumers to make purchases based on continuous influence of advertising.
- **Economic Function** - Established trademark is a valuable asset. Trademarks may be licensed or franchised.

Trademark registration provides for exclusive rights i.e. the registered trademark owners have exclusive right to use their marks in trading. They also have the rights to take legal action for infringement under the Trade Marks Law against others who use their marks without consent. They can either take civil action or lodge complaints to Enforcement Division for appropriate actions under the Trade Description Act 1972. In Malaysia, registration of trademarks is not compulsory unlike registration of companies and business. Unregistered trademarks may still obtain protection under Common Law by virtue of use and reputation.” Passing off” action against an infringer can still be instituted. However protection through usage is rather difficult and tedious. The trademark owner must convince the court, firstly, the infringing act misleads the public, and secondly, the infringing goods and services may be mistaken from this own goods and services. If protection of trademark is required in other countries, it will be necessary to apply for registration separately in each country. However, a Malaysian application can be used as a basis for claiming priority in countries which are party to the Paris Convention and WHO. The registration procedure is as follows:

1. The procedure to file and prosecute a trademark application is similar to the procedure in other common-law countries. Malaysia adopts a 'first to use' system as compared to a 'first to file' system. Registered marks can be revoked if a registered mark has not been used in trade for a continuous period of 36 months without any valid legally acceptable reason.
2. Each application must be for single mark in a single class. The application can include several goods or services all falling within the same international class without the payment of any additional fees.
3. If the mark applied for is acceptable to the Trademark Office, it is advertised in the Government Gazette for any member of the public to oppose the application. A period of 2 months is given for the filing of any opposition. If no opposition is received, the work proceeds to registration. Conversely, after objections and/or oppositions are overcome, the mark proceeds to registration.
4. Upon registration, the mark is valid for 10 years from date of filing of application; renewable for every 10 years thereafter
5. If the application does not face any objections or oppositions, the trademark will be registered within two years.

Protection for the functional aspects of a product in Malaysia

Section 3(1) of the Trade Marks Act 1976\(^1\) defines a trade mark as follows:

“trade mark means, except in relation to Part XI, a mark used or proposed to be used in relation to goods or services for the purpose of indicating or so as to indicate a connection in the course of trade between the goods or services\(^1\) and a person having the right either as proprietor or as registered user to use the mark whether with or without an indication of the identity of that person, and means, in relation to Part XI, a mark registrable or registered under the said Part XI.”

(i) Colour
This definition only encompass a ‘mark’ as a registrable trade mark in Malaysia as opposed to the wider concept of ‘signs’ in the other jurisdictions. With regards to this, many non conventional marks including colour cannot be rendered as marks and are therefore excluded from the domain of registration.\(^1\) However it must be noted that Section 13(1) Trade Marks Act 1976 does provide that a trade mark may be limited in whole or in part to one or more specified colours and, in any such case, the fact that the trade mark is so limited shall be taken into consideration for the purpose of determining whether the trade mark is distinctive. Section 13(2) goes on to say that where a trade mark is registered without limitations as to colour, it shall be deemed to be registered for all colours.\(^1\)

(ii) Shape
Three dimensional marks are not specifically provided for in the Trade Marks Act of 1976. However it must be noted that in practice the registration of a shape mark has been accepted by the Registrar in light of s.6.26, Manual of Trade Mark Law & Practice in Malaysia (WIPO, Geneva 1989).

(iii) Scent
Malaysia has not followed the developments in other countries that have adopted extended form of source identifiers to other non verbal symbols. However as ascertained from the above discussion, many of the other jurisdictions have themselves not truly recognized the registration of olfactory marks due to the fact that of all the more unusual kinds of signs/mark, scent is probably the most unusual, and the most difficult to represent graphically.
NON-CONVENTIONAL MARKS

INTRODUCTION

A non-conventional trademark or a nontraditional trade mark is any new type of trademark which does not belong to any pre-existing category of trade mark. It seeks to protect the functional aspects of a product. This often makes it difficult to register such a mark even though it may nevertheless fulfill the essential trademark function of uniquely identifying the commercial origin of products or services.

Certain types of non-conventional trade marks have become more widely accepted in recent times as a result of legislative changes which expand the definition of ‘trade mark’¹, and now sets down a standardized, inclusive legal definition. This paper would deal with colour trade marks, shape trademarks (also known as three dimensional trademarks or 3D trademarks) and scent trademarks (also known as smell/olfactory trademarks).¹

The words of Professor David Vaver¹ are worth taking into account:
“…‘unconventional marks’ are today’s more outré elements: smell, sound, colour, shape, even taste and gesture. Until recently, such things were thought to be unregistrable and largely unprotected at common law. This position is changing internationally. Smell, sound, colour and even shape marks now appear on many trade mark registries and in trade mark legislation and treaties. They are, even when unregistered, gaining protection in both common law and civilian legal systems. This process is worth reflecting on before these unconventional trade marks of today become the conventional trade marks of tomorrow.”¹

This chapter would attempt to examine the contemporary position of the European Union (United Kingdom), the United States of America and also Australia with regards to unconventional trade marks. A comparative study of these advance jurisdictions would only allow us to thoroughly comprehend the scope of this area of trade mark protection laws and its applicability in Malaysia in light of the provisions laid down in the Trade Marks Act 1976.¹

REGISTRABILITY OF COLOUR TRADE MARKS

A color trademark is a non-conventional trademark where at least one color is used to perform the trademark function of uniquely identifying the commercial origin of products or services.¹

“Colour can be, or be part of, a protectable trade mark: the blue, white, and gold oblong Visa trade mark for credit cards is a well-known example. The difficulty of course is that colour is popularly thought of as an inherent property of matter (although technically, it is the brain’s reaction to light reflecting off matter). Added
colour is often used simply for functional purposes (a red traffic light) or to decorate products or make them more attractive. Colours are therefore not inherently trade mark material, but can become so by use. The more common the colour, the less likely it is that the consuming public will regard it as a trade mark, but this factual assumption can be overcome by evidence. The broader the range of goods or services applied for, the greater care is needed before deciding whether to register the mark, lest other traders be stopped from using colour simply as a selling feature of their goods. Traders could also monopolize the whole spectrum by registering large numbers of colours and shades.”

Colours have been increasingly used as trade marks in recent times though it has traditionally been difficult to protect colours as trade marks through registration, as a color as such was not considered to be a distinctive mark. This issue was addressed by the World Trade Organization Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), which broadened the legal definition of trade mark. Article 15 reads as follow:

**Article 15:**
Protectable Subject Matter
1. Any sign, or any combination of signs, capable of distinguishing the goods or services of one undertaking from those of other undertakings, shall be capable of constituting a trademark. Such signs, in particular words including personal names, letters, numerals, figurative elements and combinations of colours as well as any combination of such signs, shall be eligible for registration as trademarks. Where signs are not inherently capable of distinguishing the relevant goods or services, Members may make registrability depend on distinctiveness acquired through use. Members may require, as a condition of registration, that signs be visually perceptible. From the TRIPS Agreement it can be ascertained that the traditional concept of marks have now been replaced by the wider concept of signs. Therefore it would seem now that ‘any sign or indication capable of being represented graphically can be registered as a trade mark.’

The case of BP Amoco Plc v John Kelly Ltd and Glenshane Tourist Services Ltd best illustrates the recent developments in this area as it is the first infringement case concerning a colour mark under the UK jurisdiction. In this case, the plaintiff BP Amoco Plc is a well known multinational corporation which is concerned in exploration for and production of oil and gas, refining and the marketing and sale of oils, fuels, lubricants and chemicals. It brings this action against the first defendant John Kelly Ltd, a Northern Ireland registered company also involved in the sale and distribution of oils, fuels and lubricants, though on a much smaller scale.

Kelly operates a small chain of petrol filling stations in Northern Ireland operating under the trade name TOP. One of its licensees or franchisees is the second defendant which runs a filling station under the TOP brand at Glenshane Road, Maghera, County Londonderry. BP’s case against the defendants is that they are infringing BP’s UK registered trade marks numbers 1469512 and 1469513 by using the colour green on the whole or a substantial part of the exterior of the TOP service stations in
Northern Ireland and that they are thereby committing the tort of passing off their TOP branded filling stations and premises and oils, fuels and lubricants as and for those of BP or as otherwise connected with BP's business. BP seeks injunctive relief and other remedies arising out of the alleged infringement of its rights. Girvan J opined in his judgement as follows:

“As I stated earlier I am satisfied that the trade marks related to a particular and limited shade of green. It appears to be clear from the authorities under the 1938 Act such as Smith Kline & French Laboratories Limited v Sterling Windthrop Group Limited [1976] RPC 511 that colour marks or combinations can in appropriate cases give rise to good trade marks. This remains so under the 1994 Act with its extended definition of trade mark as a sign capable of being represented graphically which is capable of distinguishing goods or services of one undertaking from those of another. However a mark which purports to cover a whole spectrum of colour would lack the necessary distinctive character to qualify for registration. Thus in Re Orange Limited's Application [1998] ETMR 337 the Third Board of Appeal in the Office of Harmonisation in the Internal Market (Trade Marks and Designs) stated:

“It is true that a colour per se may be generally protectable as a community trade mark under article 4 of the Community Trade Mark Regulation. However as a rule its registration can be precluded by the absolute grounds of refusal laid down in Article 7(1)(b) or (c) or (d) of CTMR, unless it is, for example, a very specific colour shade or very specific goods or services or the applicants can successfully argue that the trade mark has become distinctive in consequence of the use which has been made of it (Article 7(3) of CTMR).”

Although those remarks were made in respect of a community trade mark application the principles applicable under the CTMR do not appear to be different from those applicable under the Trade Marks Directive.

REGISTRATION OF SHAPES (TRADE DRESS) AS A TRADE MARK

“Trade dress may also be a registered trademark of one or more features of a product or service if the features in combination may be protected through a trademark registration if the likely impact on consumers is to identify or distinguish the source or origin of the product or service.”

However one major obstacle to registration of trade dress is the prohibition against registering functional aspects of the product. In order for trade dress to be registered as a trademark it must not include any functional aspect of the product.
To allow for functional aspects of products to be registered as trademarks would undermine patent law (and industrial designs) by giving a perpetual monopoly over functional aspects of a product, contrary to patent law. If functional aspects were registrable, competitors would be prevented from being able to copy the function, thus frustrating competition. In explanation, the holder of a patent or a design right--valid, invalid, or since expired, should not be encouraged to bolster this monopoly through a trademark on the same feature. So functional and ornamental features (elements that are integral to a product or that make it attractive) should not usually be accepted as trademarks. Therefore even if a shape is found to be distinctive, it must pass two further thresholds. Firstly, it must not designate the kind, quality or intended purpose of the product or service, and secondly it cannot consist exclusively of “the shape which results from the nature of the goods themselves, or the shape of goods which is necessary to obtain a technical result, or the shape which gives substantial value to the goods.”

The case of Koninklijke Philips Electronics NV v Remington Consumer Products Ltd best elucidate the contemporary position in Europe with regards to registration of shapes as trade marks. The claimant in 1966 put on the market in the United Kingdom an electric shaver with a head consisting of three rotary blades arranged in a triangular pattern, and some 20 years later registered for the shaver a trade mark comprising a graphic representation of its head. The claimant was the only company selling rotary shavers in the United Kingdom until 1995, when the defendant began manufacturing and selling a shaver similar to that of the claimant’s.

In the claimant’s action for infringement of its trade mark, the defendant counterclaimed for revocation of the mark. The judge ordered revocation of the mark, on the grounds, inter alia, that it was incapable of distinguishing the claimant’s goods from those of other undertakings, was devoid of distinctive character and consisted exclusively of a shape which was necessary to obtain the technical result of shaving with rotary cutters. On the claimant's appeal, the Court of Appeal referred to the Court of Justice of the European Communities for a preliminary ruling a number of questions on the interpretation of provisions of First Council Directive 89/104/EEC on trade marks. The first question was whether there was a category of marks which, while not being disqualified from registration on the ground that they lacked distinctive character or were merely descriptive or customary within the trade under article 3(1)(b)-(d) of the Directive and had not acquired distinctive character through use under article 3(3), could be refused registration on the ground that they could not constitute a trade mark, under article 3(1)(a), because they did not satisfy the requirement in Article 2 that in order to be a trade mark a sign had to be capable of distinguishing the goods or services of one undertaking from those of another.

The second question was whether the shape of an article was only capable of distinguishing, for the purposes of Article 2, if it contained a capricious addition. Other questions concerned acquired distinctiveness under Article 3(3) and the scope of the prohibition under Article 3(1)(e), second indent, of the registration of signs.
consisting exclusively of ‘the shape of goods which is necessary to obtain a technical result’.

It was held in that case that there was no class of trade marks having a distinctive character by their nature or by the use made of them which was not capable of distinguishing goods or services within Article 2 of Directive 89/104, and hence there did not exist a class of marks which were not excluded from registration by virtue of Article 3(1)(b), (c) and (d) and 3(3) of the Directive but were none the less excluded by Article 3(1)(a) on the ground that they were incapable of distinguishing the goods of the mark's proprietor from those of other undertakings.

That in the case of a sign comprising the shape of a product, Article 2 simply required that the shape was capable of distinguishing that product from those of other undertakings, and it was not necessary for there to be a capricious addition such as an extensive use of a sign consisting of the shape of the goods could be sufficient to give the sign a distinctive character for the purposes of Article 3(3) where, as a result of the use, a substantial proportion of the relevant class of persons, namely, average consumers of the category of goods or services in question who were reasonably well informed, observant and circumspect, associated that shape with that trader and no other, or believed that goods of that shape came from that trader; that the identification, by the relevant class of persons, of the product as originating from a given undertaking had to be as a result of the use of the sign as a trade mark; and that the requirements that had to be satisfied under Article 3(3) had to be shown to exist by reference to specific and reliable, rather than abstract and general data.\footnote{1} [emphasis added]

That, on the proper interpretation of the second indent of Article 3(1)(e), that provision precluded registration of a sign consisting exclusively of the shape of a product if the essential functional features of the shape were attributable only to the product's technical result, even if there existed other shapes which would allow the same technical result to be obtained. ‘The rationale behind this is to prevent trade mark holders from depriving competitors of the opportunity to manufacture and sell goods with the same function or, at any rate, of the free use of the shape in question.’\footnote{1}

**OLFACTORY MARKS**

The definition of "sign" in Section 6 of the Trade Marks 1995 Act allows for the registration of sounds or scents as trade marks. While these types of trade marks are not as common as trade marks consisting of words or devices, identification of goods or services via the auditory or olfactory senses is entirely possible. These "sensory" marks must meet the same requirements as any other trade mark. They must be capable of distinguishing the goods/services of the trade mark owner from the similar goods and services of other traders.
Section 40 of the Act specifies that "an application for the registration of a trade mark must be rejected if the trade mark cannot be represented graphically". This requirement has the most impact in regard to sensory trade marks such as sound and scent trade marks because other kinds of signs are, by their nature, graphical.

The onus lies with the applicant to ensure that the trade mark is adequately represented. The application must include a graphical representation of the trade mark (eg. “the scent of apple blossoms”) as well as a concise and accurate description of the trade mark (eg. “the scent of apple blossoms applied to car tyres”).

In some cases the description may also be used as the representation where there is no other form of graphic representation. A precise word description of the trade mark would be a satisfactory representation of a scent trade mark; however the results of analytical techniques would not be as they would not be readily understood by the ordinary person searching the Register. For example, the results of analytical techniques such as infrared spectroscopy; vacuum, fractional and molecular distillation; nuclear magnetic resonance; vacuum fractionation; "electronic nose" analysis and chromatographic techniques would not be acceptable

If the description or representation of the trade mark is not satisfactory in that it does not demonstrate the nature of the trade mark sufficiently or show each feature of the trade mark sufficiently, the applicant may be requested to provide a description or further description of the trade mark and specimen of the trade mark (subreg 4.3(8))

An actual sample of the scent is not required at filing but may be needed during the course of examination. Examples of acceptable descriptions are as follows:

- The trade mark is a scent mark. It consists of the smell of roses applied to plastic storage boxes for domestic purposes. The application is a scent mark, consisting of the smell of apple blossoms applied to car tyres.
- The mark comprises the strong smell of bitter beer applied to the flights of darts.¹
- The applications that failed to overcome the trade mark examiner’s objections include the trade marks: ¹
- The scent of musk applied to human skin by hand painting the liquid scent over temporary tattoo transfers, stencils and other body art designs for goods in Class 3 including perfumery, essential oils and cosmetics
- The scent of eucalyptus, including the eucalyptus scent derived from eucalyptus trees and/or from eucalyptus essential oil for goods in Class 3 including powders/washing powders used for washing clothes by machine, by hand and by soaking
- The scent of coffee for goods in Class 3 including self tan lotions, sun-tanning preparations, hair lotions, hair shampoos, hair conditioners, essential oils, lotions for cosmetic purposes and make-up preparations
- The scent of Melon Midori (Bronson and Jacobs) for goods in Class 3 including self tan lotions, shampoos and conditioners, hair products, sun-preparations, body lotions and perfumes
The scent of lemon for goods in class 34 including tobacco; cigarettes; cigars

Why should the smell of a perfume be treated differently than e.g. a sound trade mark, where the sound of the music or jingle is the sensorial perception itself, too? In all of the successful registrations the smells have been suggestive additions to the basic product. But what if the products are perfume or toiletries, where the smell forms an essential if distinctive ingredient of the product? A-G Colomer cites the Benelux Trademark registry as having allowed registration of an olfactory trademark for cosmetic products, but commentators and many trademark registries say that in these cases the smell functions as part of the product and not as an indication of source.

What if the basic product smells unpleasant and the fragrance renders it more acceptable? In another case, OHIM rejected an application to register the 'smell of raspberries' for diesel and domestic fuel. The Office took the view that consumers would not regard the scent as distinctive of the applicant's product but rather as one of industry's many attempts to make these goods smell more pleasant.

It can be argued that the perfume consists of a neutral carrier liquid that is mixed with many different aroma essences – then these essences could be registered trade marks as their gaseous aggregate state (the smell) is different from the (fluid) carrier liquid.

RESOLUTION

Relying on an olfactory sense, rather than on the visual or auditory, to identify a proprietor is perhaps a new concept, but the question of the capability of a scent to distinguish an applicant's goods and/or services should be decided on the same general criteria as with any other kind of trade mark. That is, on the basis of whether other traders would want or need to use it in the ordinary course of their business, without improper motive. The categories should be:

Natural scent of a product

The natural scent of a product will have no inherent adaptation to distinguish the goods. Into this category come goods such as perfumes and eau de colognes for personal use; essential oils for perfumery or cooking; the scent of cedar for timber products and herbal scents/essences for culinary use. These scents either form the goods themselves or are a natural attribute of the goods. The scent thus refers to the goods, and not to the trade source.

Masking scents

In addition to the natural or inherent scents of goods, many producers use scents to mask unpleasant natural odours in the goods they sell. A masking scent has a functional purpose, and is not capable of distinguishing for that reason. Examples of this type of scent could be the use of lemon to scent domestic bleaches and laundry sprays, and lavender to scent carpet deodorants.
Scents which are common to a trade.

A non-functional use, but nevertheless use which is common to the trade, and hence not adapted to distinguish, is use of a scent to make a product more pleasant or attractive. Potential purchasers of these goods are unlikely to consider these fragrances as an indication of the origin of the goods because the use of fragrance on such goods is common to the trade. For example, the scent of lemon has been added, over a considerable period of time, to dish washing detergents and laundry products.

Scents which may be capable of distinguishing

To be capable of distinguishing the applicant's goods, the scent needs to be something apart from the goods themselves. It should be neither a natural characteristic nor an expected characteristic of the product, but something added to identify the applicant's goods from those of others in the same market. Examples which have been accepted in other jurisdictions include the smell of beer for dart flights, and a smell reminiscent of frangipani flowers for embroidery yarn, as well as various fruit perfumes for motor oils. In these cases, the perfume did not consist of the natural scent of the product, nor was there an expectation that the product be perfumed. The scent was something unusual added to the goods to assist in identifying them via olfactory means from the similar products of other traders.

Seeing as it is difficult to give an actual example of a smell trade mark in current use that would qualify for registration, this appears to be a form of marketing that is not widespread. It is unclear whether this form of trade mark will be applied for and registered in significant numbers in the future. However, future technology may make it possible to incorporate smells into a trader’s get up more easily and we may be yet to see these types of marks being used to their full extent.

CONCLUSIONS

It can be gleaned from this paper that the contemporary trends are not being adopted in Malaysia. This could lead to malfunctioning of the business world. If we intend to promote business and competition, our legislation should be amended to allow registrability of non conventional marks.. Nonetheless, it must be noted that such extension must still remain within the demarcations set out by a proper legal framework be it domestically or internationally. It is safe to conclude that Malaysia being a member of the World Trade Organization is still lagging behind in this area of the law and efforts have to be contributed towards an inexorable development of trade mark registration which is consanguineous to what is taking place around the world in order to co-exist in harmony.
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THE IMPORTANT ROLE PLAYED BY ARBITRATION IN DOING BUSINESS IN ASIA

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ABSTRACT

Arbitration as a mean of resolving disputes can rightfully claimed to be as old as the “oldest profession in the world”. King Solomon, one of the great kings of the biblical era had frequently been called upon to resolve disputes amongst his subjects. But in its present form, arbitration gained acceptance as an alternative means of dispute resolution (ADR) during the height of the Industrial Revolution in the 1800s in England.

Today, it is not far-fetched to believe that no international businessmen would invest or spend huge sum of money on a project overseas without an assurance that they can have a choice of a neutral panel of arbitrators, conducting hearing in a neutral venue to resolve their disputes. More importantly, the fact that the decision of the panel of arbitrators can be enforced in more than 140 countries is an advantage no other form of dispute resolution can offer. However, in order for this to be possible, the contracting parties must have a prior agreement which is usually subsumed in the main agreement between the parties.

The role of arbitration as the preferred mode to resolve international commercial disputes has gained prominence with the advent of free trade agreements, bi-lateral treaties and multi-lateral treaties over the last decades. The emergence of such treaties has been instrumental in the developing of international commercial arbitration especially in the Asia Pacific Region. The development of International arbitration centres such as Hong Kong International Arbitration Centre (HKIAC), the Singapore International Arbitration Centre (SIAC), the Kuala Lumpur Regional Centre for Arbitration (KLRCA) and China International Economic and Trade Arbitration Commission (CIETAC) is a testament of its increasing importance in Asia.

27 Immediate Past Chairman, Chartered Institute of Arbitrators (CIArb) , Malaysia Branch & Member of the CIArb, UK’s Practice and Standards Committee
INTRODUCTION

There can be no doubt that arbitration in Asia has seen a remarkable growth over the last 25 years. The trend is hardly surprising as the Asian region has emerged as a vibrant region for international trade. The emergence of numerous free trade agreements (FTAs), Bilateral Investment Treaties (BITs) and the implementation of the Asean Free Trade Area (AFTA) have contributed to the exponential growth in trade and investment in this region. In tandem with the phenomenal growth in international trade and investment, Asia is likely to experience an unparalleled growth in international commercial arbitrations. The dynamism of Asia, with more than half of the world’s population, as an important trading bloc attracts many internationally renowned organisations of dispute resolvers such as the American Arbitration Association, the International Chambers of Commerce and the Permanent Court of Arbitration to set up operation in this region. I must also mention that Hong Kong International Arbitration Centre (HKIAC), Singapore International Arbitration Centre (SIAC) and the Kuala Lumpur Regional Centre for Arbitration (KLRCA) for many years have been in the forefront of international arbitrations in Asia and therefore have a good setup and facilities of international standards to handle international arbitrations. The ICC and CEITAC’s presence in international arbitrations in Asia are also being keenly felt now and their impact on international arbitration in Asia will be very visible in the future. The need for Asia to embrace internationally accepted dispute resolution process is even more acute now with the tremendous increase in foreign direct investments (FDI) in Asia, the inevitable impact of WTO in the process of dispute resolution, and the slews of free trade agreements (FTAs) entered into between inter and intra Asian countries.

This paper addresses the process of dispute resolution in Asia in the context between nations (WTO), between nation and investors (ICSID) and between private companies or individuals (ICC, LCIA etc). I will also address some of the issues affecting international commercial arbitration. This includes amongst others issues during the pre-arbitration stage, the oral proceeding stage as well as the post-arbitration stage. Whilst, there are multitudes of current issues affecting international commercial arbitration, this paper will discuss several issues which have vexed the international arbitral fraternity.

Dispute resolution in WTO

What could exporters or traders to a country do if the importing country unfairly put up tariff or non-tariff barriers to prevent the exporters from accessing its market? In the past many sovereign nations unfairly put up such barriers to protect their own industries. For the exporting country the remedy lies in trying to persuade the importing country to rescind such practices or rules. Failing persuasion, the natural tendency is a tit-for-tat reaction. This unhealthy trend in international trade has been steadily improved by the various multi-lateral treaties including General Arrangement for Tariff and Trade (GATT) and now World Trade Organisation (WTO)
The WTO whose multi-lateral treaty framework that expanded the influence and coverage of GATT, has significantly reshaped the world trading system. But amongst the more important function of WTO is creating the binding dispute resolution system based on legal rules and procedures. Since time immemorial, disputes have been endemic in many commercial transactions. The early recorded incident of resolution of dispute by a neutral person was the Biblical King Solomon who had to decide to whom amongst the two feuding women the disputed baby belonged to. Since then dispute resolution has grown in scope and extent. Arbitration as an alternative dispute resolution process (ADR) has become the preferred method of resolving commercial disputes around the world. This problem is greatly accentuated by the increasing cross border transactions encouraged by the WTO, free trade agreements (FTA) and bilateral investment treaties (BITs). Thus the creation of a broader, more efficient, predictable and reliable dispute resolution process guided by virtue of the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU) has been widely hailed as an improvement over the rules and procedures of the GATT. Without doubt, the WTO dispute system has quickly established itself as one of the most important international tribunals in operation.

DSU provides for compulsory and binding jurisdiction of trade disputes, and unlike the other international agreement, the WTO, through the Dispute Settlement Body (DSB) has the ability to enforce members’ obligations and authorise suspension of concessions to effectuate compliance. Thus, even though many WTO disputes are highly contentious and politicized, members realize the benefits of the process and for the most part, allow the DSB to complete its task without having the complainant instigate retaliatory measures. The members’ willingness to use and comply with the system as intended shows the confidence and faith they have in the WTO to effectively resolve disputes. The DSU process consists of five procedural stages: consultation, panel, appellate review, arbitration and compensation.

**Consultation.** When a dispute arises pursuant to a covered agreement a Member must first request a consultation. The consultation phase attempts to find a satisfactory resolution of the dispute, very much like the negotiation phase in a multi-stage dispute resolution clause in a commercial contract. However, the Member can request a formation of a panel during the sixty day period if the consulting parties jointly considered the consultation to have failed. It is noteworthy that DSU usually encourages Members to seek alternative approaches to resolve the disputes before invoking the formal dispute settlement procedures of DSU. A large number of disputes are resolved, either through mutually agreed solution or through abandonment at this stage of the dispute settlement process.

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28 Contra, the compliance measures of the ICJ, where the UN Charter (Article 94(2)) provides for the failure of a party to comply with a decision of the ICJ merely entitles the complaining party to have recourse to the security Council, who may (or may not) deem it necessary to recommend or decide upon measures to give effect to the judgment.
Panel. If consultations fail to resolve the dispute, the complaining party may request DSB to establish a panel. Under the DSU, a panel will be established unless decided by consensus not to establish one. Panels are composed on ad hoc basis of three well qualified individuals comprising of academics and or present or past Members of non-party delegations to the WTO, and are nominated by the Secretariat. The panel evaluates the factual and legal aspects of the dispute by taking written submissions, holding oral meetings and having the power to seek additional information and expert opinions. Following submissions, rebuttal submissions and oral arguments, the panel submits its findings to the parties. The parties are given opportunities to comment on the finding. Following this the panel issues the interim report. This report includes the panel’s findings and conclusions and if there is a finding of violation, recommendations for implementation. Unless the parties request that the panel review specific aspects of the interim report, it is considered the final report.

Appellate Review. Any party (not a third party) can appeal the legal conclusions of a panel report. When a panel report is appealed, the report is referred to the Appellate Body. The Appellate Body is composed of seven members but only three will serve on any one case. Appeals are limited to issues of law covered in the panel report and legal interpretations and conclusions developed by the panel. The Appellate Body has the power to uphold, modify or reverse the rulings and recommendations of the panel.

Binding Arbitration. The parties to a dispute may decide by consensus to resolve the dispute through binding arbitration. In order for this to occur, the parties involved in the disputes must agree on the issues to be resolved and the procedures to be used during the arbitration. The parties must also agree to abide by the arbitration award. Parties agreeing to resort to arbitration are required to notify all Members, the DSB and the relevant Councils or Committees in advance of the actual commencement of the arbitration process. Any Member may raise any point relating to the arbitration award.

Arbitration awards are not appealable and are enforceable through the WTO and retaliatory measures can be imposed for non-compliance with arbitral award. Arbitration Awards are, however, subject to the Agreement’s other provisions. In other words arbitration award must be consistent with the provisions of the covered agreement, meaning they must not add to, or diminish the rights and obligations of the parties under the covered Agreements.

Arbitration under Bilateral Investment Treaty and Free Trade Agreement

I come now to discuss issues pertinent to arbitration between an individual and a State as in BITs. Arbitration under BITs is commonly known as “arbitration without privity”. This is a unique kind of arbitration where the Claimant need not have a contractual relationship with the defendant State providing for arbitration in order to be able to initiate arbitral proceedings. Arbitration is available on the basis of the State’s unilateral promise contained in the treaties for the promotion and protection of investments. These treaties may be bilateral or multi-lateral like AFTA Treaty. Traditionally, international protections could only be enforced at the international
level by actions between States. A disgruntled investor would be forced to petition its government to raise any breach of international law by espousing its claim. However, in BITs and Multi-lateral treaties, the countries recognise that effective investor protection has to be firmly in the hands of the investor and independent of state actions. Hence, BITs incorporate a means of settling disputes between investor and their host states which can be triggered by the unilateral action of the investor. These treaties do not displace the investment contract but work alongside it by providing certain minimum standards of investment protection for investors domiciled in one of the state signatories who have made investments in the territory of the other signatory state.

This case involving a Hong Kong investor in Sri Lanka captured succinctly the benefit and utility of BIT. In this case a Hong Kong investor invested in a shrimp farm in Sri Lanka. Arising from a military action by the Sri Lanka armed forces against the Tamil Tigers insurgents, the farm suffered severe loss. The Hong Kong Investor had no contract with the Sri Lanka government and hence has no arbitration clause. However, fortunately for the Hong Kong Investor, Britain had concluded a BIT with Sri Lanka in 1980 and this BIT included Hong Kong. The agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of Sri Lanka for the Promotion and Protection of Investments, provided in Article 8.1:

“Each Contracting Party hereby consents to submit to the International Centre for the Settlement of Investment Disputes (.....) for the settlement by conciliation or arbitration[......] any legal disputes arising between that Contracting Party and a national or company of the other Contracting Party concerning an investment of the latter in the territory of the former.”

The Hong Kong investor relied on this provision and successfully instituted arbitration proceedings against the Republic of Sri Lanka before the International Centre for Investment Disputes (ICSID)\(^\text{29}\). An award was rendered in 1990 requiring Sri Lanka to compensate for failing to ensure “full protection and security” for investment, as provided for by the BIT.

**Arbitration option provided by the Treaty**

Once the pre-condition for exercising the rights of action has been fulfilled, investment treaties usually present a choice of the dispute resolution mechanisms, arbitration, court litigation or other agreed dispute settlement procedures, eg Article IX of the US-Azerbaijan BIT Provides:

2. A national or company that is a party to an investment dispute may submit the dispute for resolution under one of the following alternatives:

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\(^{29}\) ICSID is an arbitration facility established by the 1965 Washington Convention on the Settlement of Investment Disputes between states and Nationals of other states (ICSID Convention). It is exclusively devoted to investment disputes arbitration i.e arbitration between foreign investor and the host state relating to an investment of the former in the territory of the latter.
a) to the courts or administrative tribunals of the Party that is a party to the dispute; or
b) in accordance with any applicable, previously agreed dispute-settlement procedures; or
c) in accordance with the terms of paragraph 3

3. Provided that the national or company concerned has not submitted the dispute for resolution under paragraph 2(a) or (b), and that three months have elapsed from the date on which the dispute arose, the national or company concerned may submit the dispute for settlement by binding arbitration:

(i) the Centre, if the Centre is available; or
(ii) to the Additional Facility of the Centre, if the Centre is not available; or
(iii) in accordance with UNCITRAL Arbitration Rules; or
(iv) if agreed by both parties to the dispute, to any other arbitration institution or in accordance with any other arbitration rules.

It is clear that the options for resolving investments disputes are dictated by the BITs and Multi-lateral treaties which govern the Contracting nations. But from experience of most investors, arbitrations is usually the preferred option for a variety of reasons. Chief amongst it is that the choice of a neutral tribunal which both the parties in the arbitral process are comfortable with. In this regard, I would like to briefly touch on the arbitration options in solving investment dispute.

**Institutional arbitration.** Investment treaty disputes are resolved under the auspices of an institution that assists in the initiation of the arbitration, constitution of the tribunal and subsequent proceedings. The key institution is ICSID, but reference is also found in treaties to the International Chambers of Commerce (ICC) Rules of Arbitration, and arbitration under the Arbitration Rules of the Arbitration Institute of the Stockholm Chamber of Commerce.

**Non-Institutional arbitration.** Alongside institutional arbitration, investment treaties usually provide also the possibility of ad hoc arbitration, i.e arbitration without an administering institution. The most common ad hoc arbitration is under the 1976 Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL), which are designed for ad hoc or non-institutional proceedings. In such cases, it is common for the parties to agree to an administering institution such as the Permanent Court of Arbitration (PCA), in the Hague, the American Arbitration Association (AAA) in New York or the London Court of International Arbitration (LCIA) in London. In Asia, the Hong Kong International Arbitration Centre (HKIAC), The Singapore International Arbitration Centre (SIAC) and Kuala Lumpur Regional Centre for Arbitration (KLRCA) would also be the options.
Factors influencing the investor’s choice. When making the choice among arbitration options, there are several issues for the investor to bear in mind. First is the enforceability of the arbitration award. In case of ICSID arbitration, enforcement will take place under ICSID convention. Where the arbitration did not come under ICSID, the award can be enforced under the New York Convention 1958 on the Reciprocal Recognition and Enforcement of Foreign Arbitral Awards (New York Convention). It is to be noted that enforcement of award under ICSID is automatic whilst enforcement proceeding under New York Convention can be spoiled by defending enforcement under the New York Convention. This would militate in favour of ICSID if available.

Secondly, unlike other institutional rules, the existence of the ICSID arbitration is public knowledge and posted on ICSID website. Thus in today’s world where countries are competing for foreign direct investments (FDI), the mere fact that a country has an ICSID arbitration against it would be a ‘black mark’ for the country. An ICSID arbitration will usually create a stronger bargaining position for the foreign investor against recalcitrant state. Thirdly if ICSID arbitration is not available, an institutional arbitration is almost always better than an ad hoc arbitration as it provides the parties with the discipline of a clear set of rules which will be enforced by the institution and provide less opportunity to derail the proceedings.

Commercial Arbitrations

Commercial arbitration is one category of arbitrations which is probably the most common and most familiar to business community all over the world. Commercial arbitrations are frequently used to resolve disputes between domestic parties and very often between a domestic and an international party. Unlike litigation in a municipal court or the ICSID and WTO arbitrations, the disputant can only invoke commercial arbitration if there is privity between the parties in disputes. In most legal jurisdiction a written arbitration agreement to submit future disputes relating to the contract to arbitration is necessary before the rights to arbitration can be invoked. Occasionally, if no such agreement is available within the contract, the disputants can separately enter into an ad hoc agreement to submit their disputes to arbitration. Most of these arbitrations are governed by a national statute like Arbitration Act 2005 in Malaysia or Arbitration Act 1996 in UK. And the arbitration rules which the parties have chosen will become part of the agreement the parties have agreed should govern the arbitral proceedings. Like the other two categories of arbitrations (ICSID and WTO), commercial arbitrations can be an institutional arbitration like that of ICC, LCIA or SIAC arbitrations. The process of the arbitration is quite similar to court litigation. In fact arbitration has been widely known, though erroneously, as “litigation without wigs”. Arbitrations generally follow the principle of litigations minus the numerous but sometime rather rigid formal requirements. And one of the principal benefits in a cross-border dispute is the arbitrator’s award can be enforced in more than 140 New York Convention countries. This advantage is not enjoyed by court judgments, as the availability of the avenue for enforcement of court judgments are much restricted by the bilateral or multi-lateral treaties for mutual enforcement of judgments.
Whilst many papers in conferences around the world have extolled the virtues of arbitrations in resolving commercial disputes, I thought it may be timely for me to also highlight some of the issues which arbitration process have encountered in Asia in the past.

**PRE-ARBITRATION STAGE**. The successful commencement of an arbitration process is undoubtedly an important step in any dispute resolution. Unlike litigation, arbitration is a creature of the parties’ agreement, therefore, the arbitrator’s jurisdiction to adjudicate the dispute is derived from the parties’ agreement. Challenge to the arbitrator’s jurisdiction, if successful, often is the surest way to delay an arbitration proceedings. Admittedly, the concept of the jurisdiction of an arbitrator’s is rather abstract and often raised “dispute within a dispute.” A simple way to describe “jurisdiction of an arbitrator” is to compare it to the boundary of a farmer’s farm, beyond which he cannot cultivate his crops because the land belongs to others. The farmer would have trespassed into the neighbor’s land if he has done that. Likewise, if an arbitral tribunal strayed beyond the bounds of its jurisdiction, the decisions and the award of the arbitrator would be subjected to challenge and may stand to be set aside by the court of law. In this respect I would like to address two important issues which often occurred at the commencement of the proceeding.

*Determinations of the arbitrator’s jurisdiction*

The powers and jurisdiction of an arbitrator are dependent upon two factors i.e. the agreement of the parties and the laws of the competent national jurisdiction. Arbitration, as an alternative form of dispute resolution can only take place if agreed to by the disputants in advance of the dispute. Alternatively, if there is no prior agreement, the dispute can still be submitted to arbitration but it must be by way of an ad hoc arbitration agreement where the parties jointly agreed to submit dispute to be determined by a private tribunal. In addition to the agreement of the parties, the relevant national laws, whether directly or indirectly, also influence the effectiveness of the arbitral agreement. If the arbitral agreement does not cover the nature of dispute submitted to the arbitral tribunal or if the subject matter is not arbitrable under the law, the arbitral agreement will be ineffective. In such eventuality, neither the proceedings nor the arbitral award rendered will be recognized by the interested legal systems.

However, the issue is often not determined in such straightforward manner. For example, several dubious decisions from national courts in respect of several international arbitrations from this region underlined the importance of the judiciary’s thorough understanding of the arbitral process. In *P.T Perusahaan Dagang Tempo v P.T. Roche Indonesia* a dispute related to termination of a distributorship agreement, the court very controversially ignored the arbitration agreement and refused to stay the legal proceeding brought by one party. The court’s refusal to stay the legal proceedings stems from their understanding that this dispute was a “legal dispute” and
not a “technical” one, therefore they have jurisdiction to hear this dispute. The court’s finding that the arbitral tribunal only had jurisdiction on “technical matters” and not “legal” dispute is quite extra-ordinary. In another Indonesian case, \textit{P.T. Branita Sandhini v P.T. Panen Buah Emas (2004)} the issues of applicable law and the jurisdiction of the arbitral tribunal to hear this dispute were hotly-contested and the court in Indonesia decided, for some obscure reasons, to ignore international practice in an interpretation of the arbitral agreement and ruled the jurisdiction to hear this case stay with the court in Indonesia and refused to stay the court proceeding. In this case, there was an allegation of wrongful termination of a cotton processing agreement. The court was seized with this action for $US 25 million damages for wrongful termination of the agreement. This arbitration agreement provided for arbitration in Singapore in accordance with the Arbitration Rules of the Singapore International Arbitration Centre.” The agreement further provided that the Indonesian law shall govern the agreement. The court held that the arbitration clause involved a conflict as to which law was applicable. The Indonesian court completely mis-interpreted Clause19.1 in the agreement which provided each dispute shall be resolved by arbitration in Singapore according to SIAC rules, as tantamount to arbitration in Singapore according to arbitration law of the Singapore International Arbitration Centre. And since this is not an Indonesian law which the parties’ have agreed shall govern the agreement, the tribunal appointed to decide on the dispute had no jurisdiction \textit{ab initio}. Clearly, the Indonesia court confused the governing law chosen by the parties with the venue and procedural rules chosen by the parties. Because of this conflict the court decided to retain jurisdiction and refused a stay. Very strangely, the court in denying a stay of proceeding further ruled that termination of an agreement also did not come under the arbitration clause which said “ any dispute arising under this agreement shall be referred to and finally resolved by arbitration” . The court’s interpretation of this clause presumably placed disputes arising from termination of an agreement as outside the ambit of the contract and therefore cannot be arbitrated. Such interpretation, ignoring the widely accepted doctrine of separability is contrary to current international practice to recognize the primacy of the doctrine of separability in an arbitration agreement.

In another case from this region, one of the parties to an arbitration agreement refused to appoint an arbitrator to resolve their dispute, as a result the other party applied to the court to appoint one. Instead of acting with dispatch to quickly appoint an arbitrator, the court took 23 months to appoint one. Whilst, we are fully sympathetic to the overworked national courts in this region, international arbitration surely cannot operate unless there is a supportive judiciary which is willing to assist when called upon to.

\textbf{DURING THE ARBITRAL PROCEEDING.} Once an arbitral tribunal has been constituted, most of the arbitrations are conducted without the need to refer to national court, even if one of the parties fails or refuses to take part in the proceedings. There

may be times, however, when the involvement of a national court is necessary in order to ensure the proper conduct of the arbitration. The question of the degree of involvement of a national court in arbitration often becomes controversial. When does this “involvement” becomes an “intervention” and when does the “intervention” becomes an “interference.” This moot question, unfortunately, has no simple or straightforward answer. Nevertheless, a court’s interference in the arbitration process by granting a party an “anti-arbitration” injunction, either at the place of arbitration or at place of enforcement, has been a problem. Usually, this problem involved arbitration between a foreign party and a state entity which has signed a clear arbitration agreement.

Anti-Arbitration Injunction

In an application for an anti-arbitration or anti-suit injunction one party usually seeks to challenge the jurisdiction of the arbitral tribunal and an order requiring the arbitrator and adverse party to suspend or abandon the arbitral proceedings on the threat of daily fine or worse consequence. This problem raised serious challenges to the modern arbitration.

In one such case, a subsidiary of a US corporation, Himpurna, had entered into a contract with the Indonesia’s state electricity corporation, PLN, to explore the geothermal resources in Indonesia and subsequently sell the power to PLN. In the wake of Asian financial crisis in 1997, PLN failed to purchase the electricity supplied. Himpurna relied on the arbitration clause in the contract to commence arbitration under the UNCITRAL Rules against PLN. A final award was made in favor of Himpurna which PLN refused to pay. A second arbitration was commenced by Himpurna against the Indonesian Government, based on Indonesia Government’s pledge to secure PLN’s performance. Shortly after serving the Statement of Claim, court proceedings were commenced by both PLN and the Indonesian Government in an Indonesian court which resulted in an interim injunction to the arbitrator to stay the proceedings, in addition the court also attached fines of US$ 1 million a day for any breached of the order. The court’s order to suspend the arbitral proceedings was made, apparently, to allow the court to decide on the merits of this case. Notwithstanding the court’s order, the tribunal refused to abandon the proceedings instead it moved the hearing of witnesses to Hague, in Holland. Not satisfied with the tribunal’s decisions, the Indonesian government tried to stop the hearing in the Hague by seeking an injunction from the Dutch court to stop the proceedings but failed. The final award was issued thereafter.

A similar problem was also encountered by ICC arbitration between an Ethiopia state agency and a European contractor; the Ethiopia party sought and obtained an injunction from the Ethiopia Supreme Court restraining the arbitration proceedings in Paris. In response to this injunction the arbitral tribunal ignored the injunction and held that the Tribunal has a duty under Art. 35 of the ICC Rules to “ensure” that their awards are “enforceable at law”, and although in this case the likely place of enforcement was Ethiopia, it did not mean that an arbitral tribunal:
should simply abdicate to the courts of the seat the tribunal’s own judgment about what is fair and right….In the event the arbitral tribunal considers that to follow a decision of a court would conflict fundamentally with the tribunal’s understanding of its duty to the parties, derived from the parties’ arbitration agreement, the tribunal must follow its own judgment, even if that requires non-compliance with court order.

The tribunal concluded that to comply with the injunction would lead to a denial of justice. A slightly different problem was encountered in another arbitration held in year 2000, the Supreme of Pakistan had to consider HUBCO v WAPDA.31 This was a dispute relating to a power project. A local company was incorporated to represent the foreign interests. It entered into an agreement with the Pakistani Government and with a state-owned power entity in Pakistan called WAPDA. A dispute arose as to the tariff which was alleged by the respondent to be too high. The Claimant started arbitration proceedings pursuant to the arbitration agreement. The Respondent however alleged fraud and illegality on the Claimant’s action in securing a change in the contract terms to increase the originally agreed tariff to higher tariff. The Respondent made application to the High Court in Lahore for an ex parte injunction preventing the Claimant from continuing with the London arbitration. The case eventually was brought before the Supreme Court of Pakistan. The Court determined by a majority of 3 to 2 for reason of public policy the dispute was not within the scope of arbitration. Fortunately, cases which could potentially delay the arbitral process are not very frequent, nevertheless, it is a setback to the sanctity of party autonomy in arbitration.

CONFIDENTIALITY OF THE PROCEEDINGS. It is generally agreed that one of the important pillars of arbitration over litigation is the confidentiality of the proceedings. It has been thought for some time that “confidentiality” is an unassailable implied term of an arbitration process. The current state of the law and practice over the confidential nature of arbitration appears inconsistent across various jurisdictions. The UNCITRAL Model Law for example does not mention the confidential nature of the award. In practice, some institutions actually either publish or permit the publication of the award.32 In the Australian case of Esso Australia Resources Ltd. v Plowman (Minister of Energy and Minerals)33 it became apparent that whilst everyone accepted that arbitration is private, not all however accepted that it is necessarily confidential. In England, confidentiality in arbitration is recognized as the essential corollary to privacy in arbitration34 and is a term the law will necessarily import into the agreement.35 Malaysia appears to have adopted the English position that the rule to confidentiality is not absolute but subject to exceptions, such as:

(1) Where the parties consented to the disclosure; or

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32 The Society of Maritime Arbitrators, New York routinely publishes arbitral awards and make them available for subscription. The Baltic Exchange, until the 1970s, permitted awards to be posted on their notice board to encourage payment by debtors. The ICC publishes arbitral awards rendered since 1973: some fully and some in “sanitized”.
33 (1995)128 ALR 391
35 Ali Shipping Corp. v Shipyard Trogir[1988]2 All ER136, CA
Disclosure is made pursuant to an order of a court; or
If disclosure is reasonably necessary for the protection of the legitimate interests of a party vis-à-vis a claim by a third party; or
Where the interest of justice requires disclosure.\textsuperscript{36}

In England, the use of documents generated in or obtained during the arbitration for use outside the arbitration, is not permissible even when required for use in other related proceedings\textsuperscript{37}. In contrast, the rule of confidentiality is not fully embraced in Australia. The High Court of Australia in \textit{Esso Australia Resources Ltd. V Plowman} could not accept that a duty of confidence must follow from implied right of privacy; distinguishing that while arbitration is private, it is not confidential. The court held even if contractual duty does exist, it is not an absolute one. It follows that no obligation of confidentiality attaches to witnesses in the arbitral proceedings. The decision, coming from the highest court in Australia has certainly caused much disquiet amongst business community.\textsuperscript{38}

A strict application of the rule of confidentiality would mean that a tribunal’s findings or what transpired in arbitration may not be referred to in another proceeding, even if the parties and subject matters involved are closely related. Apart from the obvious waste of time and resources, this could also lead to inconsistent findings by a different tribunal in similar issue. By and large, the English’s position which treats arbitration as private and confidential with exceptions is a preferred view. Dismantling totally the “confidentiality pillar” of an arbitration process would be unwise as there would then no longer be any advantage in an arbitral process as a “low-key method” of resolving dispute preferred by most businessmen all over the world.

\textbf{MONEY LAUNDERING}. Using the arbitral process to launder money is not something new, in fact the UNCITRAL Model (MAL) on International Commercial Arbitration, in Art. 30 on settlement between the parties stated the following:

If, during arbitral proceedings, the parties settle the dispute, the arbitral tribunal shall terminate the proceedings and if requested by the parties and not objected to by the tribunal, record the settlement in the form of an arbitral award on the agreed terms. (Emphasis added)

\textsuperscript{36} \textit{London and Leeds Estates Ltd. V Paribas Ltd.} (No. 2)[1995] 02EG134, where the court held that if an expert witness in a previous arbitration had expressed views which might contradict those in court proceedings, he might be subpoenaed in the interest of justice to give proof of his evidence in the earlier arbitration. In \textit{Ali Shipping Corp. v Trogir}, Potter LJ added that he would have done so even if the witness is was a witness of fact.

\textsuperscript{37} Department of Economic Policy and Development of the City Of Moscow v Banker’s Trust Company and Anor [2004] CA BLR 220

Similarly, several arbitral institutional rules including ICC Rules also contain provisions that the parties after reaching a settlement request the tribunal to issue a consent award. For example in ICC Rules, Art. 13:

[t]he settlement shall be recorded in the form of an Award made by consent of the parties if so requested by the parties and if the Arbitral Tribunal agrees to do so. (Emphasis Added)

Quite clearly, the words emphasized in italics have been inserted to allow the tribunal, if the circumstances of the settlement created any doubts of any “impropriety”, to deny any legitimization of such settlement by not rendering an award on agreed terms. An example might be the manufacture of internationally banned drug, or the smuggling of contra-brand or an agreement which contravenes the various anti-trust or competition laws. At one time various sets of rules (including ICC rules) seemed to leave the tribunal with no discretion, but modern rules and legislations permit the arbitral tribunal an option to refuse to make a consent award. But incidence of such a settlement has been rare. Rare as they be, the situation is heightened by the fear of “illegitimate funds movement” post September 11. Conceivably, situation could arise whereby arbitration award is used as framework by which monies are transferred between parties and potentially “laundered” in the process. It is not a new problem per se, but it potentially may give rise to concerns, for the arbitrator, in the context of new money laundering regulations and legislation in many countries. For example by providing a consent award, which facilitates a financial transaction of “proceeds of crime”, could an arbitrator commit an offence under Section 328 of the Money Laundering Regulations 2003? Legislations to prevent laundering of money have been enacted in many countries, the tribunal must be extremely careful so as not to run fouled of these legislations in being a “conduit of the illegal activity.” In UK, the authorities have made it clear that it was not the intention of ML Regulations to catch third party dispute resolvers. This, however, should not be relied upon as a substitute for careful review and understanding of the governing regime in the relevant jurisdiction(s) by arbitration counsel and arbitrator alike.

POST ARBITRAL PROCEEDING. Challenges to the arbitrator’s award is the last-ditched effort by a losing litigant to avoid the award being enforced against them whether in their own country or in foreign countries, where there may be assets to satisfy the award. One such case is in Tang v Tan, the arbitrator made an award that was “final save as to cost”, dismissing Tang’s counterclaim, but later made an additional award in which he affirmed his earlier award in favor of Tan. On Tang’s application and after further hearing, the arbitrator reversed his earlier decision and awarded the counterclaim to Tang by rendering a further award. Tan challenged the second award in the Singapore High Court. GP Selvam J held that the arbitrator could not revisit an award, which was final so far as matters in the award were concerned.

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40 Ibid.
He said that an interim award which is final in nature rendered the arbitral tribunal *functus officio* in respect of the issues decided. The Singapore Court of Appeal however held that, as the arbitration fell within the purview of the International Arbitration Act 1995 (Chapter 143A) (IAA), as such the Model Law (MAL) was incorporated under S3(1) IAA 1995 as part of Singapore law. Art.32 (1) of MAL provides that a final award terminates arbitral proceedings and the arbitrator’s mandate. The Court of Appeal held that an arbitrator is not *functus officio* until a final award is made which disposes of all the issues. Thus the arbitrator could revisit his interim awards and amend them in the final award. The decision of the Court of Appeal in a way shook the faith of international business community in Singapore because the principle of finality of award which underpins the commercial utility of an arbitration award has been seriously eroded by this decision. It follows that the rationale of choosing to resolve an international commercial dispute through arbitration in Singapore has became untenable. The decision of the Court of Appeal caught many in the international community by surprise and stirred considerable debates, as the decision is a clear affront on the doctrine of party autonomy. However, the Singapore Legislature worked with extraordinary speed and efficiency to amend the IAA to clarify certain of its provisions; Section19B was inserted:

1. An award made by the arbitral tribunal pursuant to an agreement is final and binding on the parties and on any persons claiming through or under them and may be relied upon by any of the parties by way of defence, set-off or otherwise in any proceedings in any court of competent jurisdiction.
2. Except as provided in Articles 33 and 34 of the Model Law, upon an award being made, including an award made in accordance with section 19A, the arbitral tribunal shall not vary, amend, correct, review add to or revoke the award.
3. For all purposes of subsection (2), an award is made when it has been signed and delivered in accordance with Article 31 of the Model Law.
4. This section shall not affect the right of a person to challenge the award by any available arbitral process of appeal or review or in accordance with the provisions of this Act and the Model Law.

The amendment contained in S19B of the International Arbitration (Amendment) Act 2001, which effectively reversed the decision of the Court of Appeal to some extent restored the international community faith in Singapore as a place of international arbitration. This additional clause ensures the finality of an award in international arbitrations having their seat in Singapore and it prevents the party from applying to the tribunal to reconsider or reverse an interim award once it has been published unless there is prior agreement.

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44 Tang Boon Jek Jeffrey v Tan Poh Stanley [2001] 3 SLR 237
CONCLUSIONS

As one of the most vibrant regions in international trade, Asia must continue to maintain the competitive edge. It is common knowledge that international business community places great importance as to how disputes between them should be resolved. Availability of the process in commercial arbitrations, WTO and ICSID arbitrations will play a significant part in giving confidence to the business community in Asia. Dispute resolution process acceptable to them are available right here in Asia and competent tribunals can be constituted to resolve commercial disputes, whether it is between private parties or between a private party and a State. The problems which I have highlighted above greatly affect the integrity and utility of arbitration as a viable private dispute resolution process. The international arbitral communities loathe such decisions. It is hope that incident of such dubious nature should be greatly minimized if not eliminated if Asia wishes to remain an attractive place for FDIs. Be that as it may, these current issues affecting international commercial arbitration will continue to be contentious. The primary reason for this pessimistic prognosis lies in the flexibility of the rules of interpretation of statutes and the parties’ agreement. Quite often the primacy of national interests outweighs the international acceptance and it forms the backdrop of the decision-making process. This is despite the fact that many countries have chosen to embrace the internationally preferred Model Law as a framework for their national arbitral laws, and the modern international rules and practice in arbitration. The discussions in this paper have highlighted the differences in expectations between the international community and the national courts in Asia. I am confident with the increasing reputation of HKIAC, SIAC and KLRCA as premier institutions for international arbitration, Asia has come of age as a competent centre for commercial dispute resolution.

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ABSTRACT

With the social development and economic growth, professional women in China, as a group, have become a more more important part of the work force. Women with higher education are a good sample of those professional women who work hard and have higher good salaries. However, due to the quick pace and heavy pressure of work, attention has been paid to the current situation of psychological health of those professional women. This study was conducted using the GHQ-28(General Health Questionnaire) and was completed by 70 women with higher education in three different kinds of organizations to try to ascertain the factors that influence psychological health of professional women in China.

INTRODUCTION

Educated professional women, refers to those who have received a good education, especially higher education and have obtained a job in the area of education and culture, health, or science and technology. Educated professional women represent a group of high level of quality in all aspects.

According to Yuan, Zhu and Li (2005), there are about 4-20% of the Chinese population who have the problem of depressive disorders, and the proportion of women is higher than that of men. The situation is similar in the USA. According to some researchers, in the United States for the past 30 years or more, women have experienced depression about twice as frequently as men (Culbertson , 1997). Some researchers even quote a female-male ratio of 3:1 for depression (Klerman and Weissman, 1989; Wetzel, 1994). For major depression which is a more impairing than a number of other medical conditions, the ratio has been reported as four women for every man, although rates vary with ethnicity and culture (Sileo, 1990). For bipolar disorder (manic depression), the rates are equal between the sexes (Weissman, 1987).Women’s current high levels of education and participation in the labor force have focused attention on their changing lifestyles and psychological health. They are doing the same jobs as and with men, taking the same responsibility and shouldering pressure not less than many men.
LITERATURE REVIEW

Life is full of emotional ‘ups and downs’. But when the ‘down’ times are long lasting or interfere with an individual's ability to function, that person may be suffering from a common, but serious psychological problem – depression. Generally, depression is defined as a disorder of the mind that affects the physical, psychological, and social functioning of an individual. Most investigators consider reports of sadness, helplessness, eating disturbances, social withdrawal, loss of ability to concentrate, ideas of inadequacy or worthlessness, tension, lack of energy, and anxiety to be signs or symptoms of depression (Beck, Ward, Mendelsohn, Mack, and Erbaugh, 1961; McGrath et al., 1990).

There have been many researches on women's depression, focusing particularly on gender. In 1989, Klerman and Weissman reported findings of several large epidemiological studies that suggested a persistent gender effect. The studies were conducted in the United States, Sweden, Germany, Canada, New Zealand, Puerto Rico, and Korea. The studies reported temporal changes in depression for cohorts born after World War II as follows: (a) Onset periods or depression were decreased, and increases occurred in late adolescence or early adulthood; (b) rates of depression increased for all participants from 1960 to 1975; (c) women were persistently reported to be two-three times more likely to be depressed than men across all adult ages; (d) a persistent family effect occurred; and (e) there was a suggestion of a narrowing of differential risk to men and women due to a rise in the risk of depression in young men.

In 1990, Nolen-Hoeksema published her book “Sex Differences in Depression”, which reviewed studies of depression and gender conducted outside the United States. She reported on gender differences in depression in individuals from high-income countries (developed countries) and low-income countries (developing countries). In her review of studies of treated cases of depression outside the United States, she reported that there was a mean of 2:1 female-male ratio of depression in developed nations. However, in studies of depression outside the developed nations, she reported no significant findings of female-male depression differences, especially in developing countries. These findings led her to suggest that the culture of a country is a significant determinant of female-male differences in depression. So the cultural dimensions of depression in the analysis of data is being recognised as significant, in addition to the biopsychosocial aspects of depressive disorders. Risk factors that lead to depressive states in a culture are also being studied by the WHO. McGrath et all. (1990) reported that in the United States, women's risk factors for depression include reproductive issues, personality styles, sexual and physical abuse, marriage and children, minority status, and genetic factors.

Jack (1999) offers new insights into the roots of female depression as she illuminates why women are far more likely than men to suffer major depression in adulthood. Jack demonstrates how internalized cultural expectations of feminine goodness affect women's behavior in relationships and precipitate the plunge into depression. She provided new meanings to familiar themes: dependence, pleasing, anger, goodness,
and low self-esteem. She made a major contribution to the psychology of women by drawing from the recent literature on women's relational self and detailing its relevance to female depression. This insightful approach to the dynamic of female depression forges new pathways to self-change, therapy, and research.

Fredrickson and Roberts (2006) offered objectification theory as a framework for understanding the experiential consequences of being female in a culture that sexually objectifies the female body. Objectification theory posits that girls and women are typically acculturated to internalize an observer's perspective as a primary view of their physical selves. This perspective on self can lead to habitual body monitoring, which, in turn, can increase women's opportunities for shame and anxiety, reduce opportunities for peak motivational states, and diminish awareness of internal bodily states. Accumulations of such experiences may help account for an array of mental health risks that disproportionately affect women: unipolar depression, sexual dysfunction, and eating disorders. Objectification theory also illuminates why changes in these mental health risks appear to occur in step with life-course changes in the female body.

Zhang (2001) analyzed the psychological features of female teachers with a high education background in 15 universities in China. The findings were: females with higher degrees are more easily able to adjust themselves and control temper when they met problems or emergencies compared with those who do not have higher degrees; among females of all ages, middle-aged women are shouldering greatest pressures with lowest ability to withstand pressure.

In Guan’s survey (2006) of 1064 white-collar professional working women, he compared different working women of different ages. He found that although compared with other working women, white-collar women have a higher level of a depressive state, they also have more positive ways to tackle it. Age and marital status are significant factors influencing mental health since it is shown that white-collar women aged more than 35 and married women tend to have higher levels of depression. Moreover, there were fewer women with a higher educational background and more income, having the problems of depressive disorders, so it can be concluded that factors of education and income are more likely to be reverse ones to depression.

Liu (2007) used the SCL-90 questionnaire, in conducting a survey among 946 working females. In her investigation, she found that working female have problems of depression at different levels with the symptoms of anxiety, depression and sensitiveness. The symptoms of depression are closely related to working pressure, the conflict between high expectations of work and with the unsatisfied reality.

**RESEARCH METHODOLOGY**

This study aims to investigate and examine the factors that influence psychological health of Chinese working women. Shanghai was chosen as a location for this study.
for the following reasons. First, Shanghai has gone through great economic growth over the past decades, attracting female elites from all over the country. Second, the fast working pace and fierce competition causes great pressure for those women who are living and working in the city. Hence, working women in Shanghai could be viewed as a representative group for our survey. The sample for this study consisted of 70 white collar females, including office workers, bank staff, doctors and university teachers living in Shanghai, China.

The questionnaire used in this study consists of 28 questions, each of which has four answers to choose from, which are “not at all”, “sometimes”, “often” and “always”, each of which represents levels from 1 to 4. If “not at all” or “sometimes” is chosen, then the respondent will get a score of 0, and if “often” or “always” is selected, then the score of 1 applies. If GHQ ≥ 3, then she will be suspected of having a mental disorder; if GHQ ≥ 5, this means that she meets the problem of psychological barriers. The higher the score, the worse is the depressive state. The questionnaire is intended to examine four aspects of women’s mental status, including factor A “physical health” (Question 1-7), factor B “psychological health” (Question 8-14), factor C “working capability and activity” (Question 15-21) and factor D “self-confidence” (Question 22-28).

**FINDINGS**

1. Descriptive Statistics

Table 1 shows the descriptive statistics of the respondents.

**TABLE 1: DESCRIPTIVE STATISTICS OF RESPONDENTS**

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<tbody>
<tr>
<td>Age</td>
<td>70</td>
<td>23</td>
<td>55</td>
<td>34.46</td>
<td>7.56</td>
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<tr>
<td>Working seniority</td>
<td>70</td>
<td>2</td>
<td>39</td>
<td>12.99</td>
<td>8.79</td>
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<tr>
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<td>1</td>
<td>3</td>
<td>1.87</td>
<td>0.74</td>
</tr>
<tr>
<td>Marital Status</td>
<td>70</td>
<td>1</td>
<td>3</td>
<td>1.79</td>
<td>0.45</td>
</tr>
<tr>
<td>Job</td>
<td>70</td>
<td>1</td>
<td>4</td>
<td>2.59</td>
<td>1.1</td>
</tr>
<tr>
<td>Income</td>
<td>70</td>
<td>1</td>
<td>4</td>
<td>2.17</td>
<td>2.19</td>
</tr>
</tbody>
</table>

From table 1, we find that the average age of the respondents in this research is 34.46, with a range from 23 to 55. As for the working seniority, the average level is about 13 years. They are doing several kinds of jobs, including technical work (28.6%),
managerial work (50%), marketing and sales (2.9%) and other (13%). From our viewpoint, another factor of great importance is educational background. So, we investigated the jobs of our respondents, among whom 34.3% are college graduates, 44.3% have a bachelor’s degree and 21.4% have a master’s degree. Also, marital status cannot be neglected when women’s mental status is researched. There are 22.9% of the respondents who are unmarried females, while 75.7% are married with 1.4% divorced. Among all the women in our survey, 47.1% have salaries from 4000-6000 RMB/month, 10% have salaries from 8000-10000 RMB/month and 27.1% have salaries above 10000 RMB/month.

TABLE 2: GHQ SCORES OF RESPONDENTS

<table>
<thead>
<tr>
<th>GHQ Score</th>
<th>Person</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>19</td>
<td>27.1</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>5.7</td>
</tr>
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<td>2</td>
<td>3</td>
<td>4.3</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>5.7</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2.9</td>
</tr>
<tr>
<td>5</td>
<td>8</td>
<td>11.4</td>
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<tr>
<td>6</td>
<td>6</td>
<td>8.6</td>
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<tr>
<td>7</td>
<td>4</td>
<td>5.7</td>
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<td>8</td>
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<td>8.6</td>
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<td>9</td>
<td>3</td>
<td>4.3</td>
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<td>10</td>
<td>2</td>
<td>2.9</td>
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<td>1.4</td>
</tr>
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<td>21</td>
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<td>38</td>
<td>54.29</td>
</tr>
</tbody>
</table>

From the result of the GHQ questions, there are altogether 44 educated women with a GHQ score of more than or equal to 3, which accounts for 62.86% of all respondents; and there are 38 women in the survey with a GHQ of more than or equal to 5, which accounts for 54.29%. The result of the GHQ scores are shown in Table 2.
2. Demographic Analysis

We further analyze the relationships between the proportion of GHQ≥3 (means having psychological depressions) and demographic factors correspondingly.

**TABLE 2: DEMOGRAPHIC ANALYSIS**

| Items                  | GHQ [N| %]  | GHQ ≥3 | χ²     | P      |
|------------------------|--------|--------|--------|--------|
| **Age**                |        |        |        |        |
| <30                    | 26     | 14(53.8%) | 12(46.2%) |       |
| 31-40                  | 30     | 10(33.3%) | 20(66.7%) | 6.43   | 0.04*  |
| >41                    | 14     | 2(14.3%)  | 12(85.7%) |       |
| **Working Seniority**  |        |        |        |        |
| -10 years              | 31     | 17(54.8%) | 14(45.2%) |       |
| 11-20 years            | 26     | 7(26.9%)  | 19(73.1%) | 7.96   | 0.019* |
| 20 years               | 13     | 2(15.4%)  | 11(84.6%) |       |
| **Marital Status**     |        |        |        |        |
| Married                | 53     | 17(32.1%) | 36(67.9%) | 2.4    | 0.121  |
| Unmarried              | 17     | 9(52.9%)  | 8(47.1%)  |       |
| **Educational Background** |    |        |        |        |
| College                | 24     | 7(29.2%)  | 17(70.8%) |       |
| Bachelor               | 31     | 14(45.2%) | 17(54.8%) | 1.6    | 0.449  |
| Master                 | 15     | 5(33.3%)  | 10(66.7%) |       |
| **Job**                |        |        |        |        |
| Technical job          | 20     | 8(40.0%)  | 12(60.0%) |       |
| Managerial job         | 35     | 13(37.1%) | 22(62.9%) | 0.16   | 0.949  |
| others                 | 15     | 5(33.3%)  | 10(66.7%) |       |
| **Income**             |        |        |        |        |
| 4000-6000 RMB          | 33     | 15(45.5%) | 18(54.5%) |       |
| 6000-10000 RMB         | 18     | 6(33.3%)  | 12(66.7%) | 2.04   | 0.36   |
| >10000                 | 19     | 5(26.3%)  | 14(73.7%) |       |

The results show that “age” and “working seniority” are two significant variables which influence psychological health of educated women. They both have positive correlation with the situation of depression. It can be understood that with aging and with promotion, educated women shoulder increasingly heavy responsibility and pressure.
3. Correlations Analysis

The average level for all factors are: A “physical health”: 2.2±2.1; B “psychological health”: 1.7±1.5; factor C “working capability and acitivitis”:1.5±1.0; factor D “self-confidence”: 2.1±0.74. Although the average level of the four factors is all below 3, which is the standard in our survey to judge females’ psychological health, the real situation is not so simple as shown on the surface. Correlation analysis was conducted between age, working seniority and the four factors in the GHQ test separately. Table 3 shows the result of this correlation analysis.

**TABLE 2: CORRELATION ANALYSIS ON AGE, WORKING SENIORITY AND OTHER FACTORS**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>GHQ Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.297*</td>
<td>0.111</td>
<td>0.105</td>
<td>0.237*</td>
<td>0.254*</td>
</tr>
<tr>
<td>Working Seniority</td>
<td>0.284*</td>
<td>0.105</td>
<td>0.014</td>
<td>0.241*</td>
<td>0.236*</td>
</tr>
</tbody>
</table>

Note: *P<0.05

According to Table 3, “age” and “working seniority have a positive correlation with all factors, among which, factors of A, D and GHQ total score are significantly decided.

**DISCUSSION**

1. The high incidence of psychological barriers among educated women

According to the survey, there are 62.8% (GHQ>3) women who tend to have psychological problems among educated women in Shanghai. The percentage for women who have a psychological barrier (GHQ≧5) is 54.29%. The ratio is much higher than the data announced by the World Mental Health Survey Consortium, which showed that there are about 4.3% of Shanghai citizens suffering from psychological problems (2004); and also more than four times compared with the result issued by the report in 2005, which indicated the ratio of suspected psychological disorders is 15.21%.

2. Relevant factors

Based on some studies, women tend to suffer from more psychological problems compared with men. For example, in the survey carried out by the Shanghai Municipal Center for Disease Control, the ratio of suspected psychological problems among women is 17.23%, which is much higher than that of men, which is 12.93% (Yuan, Zhu, Li, 2005). This may be related to women's physiological and...
psychological characteristics, which are more likely to be emotional distress when they are vulnerable to fluctuations and sudden changes in their lifestyles, having symptoms of anxiety, depression, impatience and emotional responses. This is significantly different from men, who usually solve the problems or take a direct approaches to ease pressures.

The survey also found that age and length of service intensify the psychological barriers. With the accumulation of knowledge and working experience, the majority of working women are leaders and supervisors of a department, shouldering increasingly responsibility and work pressures. In order to complete their working tasks, they have to undertake further study and absorb more knowledge. In addition to the completion of the work of the department, they also have to deal with all aspects of relationships both in life and in work. Also, they often have obligations to take care of the elderly and children, worrying about their children’s education or employment. Sometimes, complaints from their husbands make the situation worse. This kind of long-term pressure in a competitive workplace and the family burden may cause long-term tension among working women and increase the psychological burden and psychological barriers which apply.

As for young working women, most of them are satisfied with their work environment, the treatment they receive and are optimistic about the prospects of their jobs. They tend to have a more active and positive attitude to life and the future. So the psychological problems are more likely to be relatively rare for them at this stage in their lives.

3. Characteristics of the depression

Factor A “physical health” is directly related with age and working seniority with the symptoms of headaches, sickness and fatigue. Educated women have stricter standards for themselves, and they are more likely to be deeply disappointed when they are meet some setbacks. However, they generally do not want to expose their ‘weaker’ side, bursting into tears, etc., Thus, they are usually not willing to talk about their problems with others, which means they have no channel to release their burdens and pressures.

CONCLUSIONS

Depression affects educated womens’ physical well-being, resulting in chronic fatigue, sleep problems, and changes in appetite. It also affects mood, with feelings of sadness, emptiness, hopelessness and dysfunctioning. It also affects the way women think, interfering with their concentration and decision making abilities. And, it affects their behavior, with increased irritability and loss of temper, social withdrawal, and a reduction in their desire to engage in pleasurable activities.
This shows that depression and dysfunctioning affects twice as many women as men and few of them the help they need. Yet, because depression is often unrecognized, depressed individuals often continue to suffer needlessly. Considering the result of this survey, attention from government towards the psychological health of educated women should be given.

Corporations and companies can adjust work pace and create a easier environment for those women with these kinds of problems, for example, by adopting flextime systems. As for the working women themselves, they should fully understand the psychological characteristics of their own condition and learn to relax themselves, adjust their mental situation, try to change attitudes and lifestyles which are not conducive to their mental health, and so pay attention to their mental health problems. Thus the goal of early detection and early intervention can be aimed for.

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ABSTRACT

Performance evaluation has become an important improvement tool for hotels to sustain in today’s highly competitive environment. Although the evaluation of hotels efficiency has been approached from various perspectives, difficulties were encountered when multiple inputs and outputs relative to hotel performance need to be considered. Thus, the purpose of this paper is to examine Malaysian hotels efficiency by adopting a framework of non-parametric programming approach – Data Envelopment Analysis (DEA). DEA is very useful to apply in a multiple inputs and outputs setting where it combines them objectively onto an overall measure of organizational efficiency called Malmquist Total Factor Productivity (TFP) index.

Keywords: Hotel efficiency; Data envelopment analysis; Total factor productivity; Malmquist index.

INTRODUCTION

Malaysia is one of Asia’s most popular tourist destinations, attracting 20.9 million tourists in 2007, which surpassed the target of 20.1 millions arrivals in April 2007. Tourist receipts have also increased from RM36.3 billion in 2006 to RM 46.1 billion in year 2007(Ministry of Tourism, Malaysia, 2008). The statistics has shown that tourism industry has emerged as an important sector of the Malaysian economy by virtue of the amount of receipt collected from its activities.
Tourism industry in Malaysia comprise of hotels, resorts, lodging, tour services, travel agencies, restaurants and catering services and transport companies. The scope of tourism service has progressed from supplying services or mass products and markets to more innovative tourism packages. These include eco-tourism, edu-tourism, health tourism, sports tourism and event organization (meeting, incentives, conference and exhibitions).

In the Ninth Malaysia Plan, tourism industry in Malaysia has been identified as having potential to increase its contribution to the service sector in particular and the economy in general. Indeed, under the Third Industrial Master Plan (IMP3) (2006-2020), tourism services has been identified as one of the eight services sub-sectors to be focused for further development during the IMP3 period. With the aim to enhance Malaysia as one of the global tourism destinations, hotels sector, being one of the sectors in the tourism industry, plays an important role to maintain and improve their performance in order to contribute to the realization of the plans.

Although hotels remain dominant in the travel accommodation in Malaysia, accounting for 85% (RM10, 738.4 million) of total travel accommodation value sales in year 2006, hotels sales did not grow in tandem with the increase in arrivals and domestic trips. Hotel value sales only grew by 4% as compared to the value sales in year 2005 (RM10, 311.9 million) (Euromonitor, 2007). Oversupply of rooms and stiff competition among hotels has driven down room rates (via discount and promotion). Meanwhile, some tourists opt for alternative accommodation such as campsites, motels, self-catering apartments, chalets, guesthouses, hostels, private accommodation and other travel accommodations (Euromonitor, 2007). As the result of oversupply of rooms, hotels sector is not able to perform in the efficient manner. Therefore, there is a need to improve the efficiency of hotels.

In the face of a highly competitive environment and the rapid expansion of hotels over market demand and the changing economic climate, it is important for hotels to formulate marketing competition strategy, strengthen corporate operations and upgrade quality of service. In formulating competition strategies, one must first measure the comparative performance of the entire industry, before one may understand one’s strengths and weaknesses. Performance evaluation serves as an important reference for planning and construction policies. Therefore, to survive and sustain in the sector, it is very important for top management of hotels to find ways to improve their efficiency and performance.

Therefore, this study aims to measure the efficiency of the hotels operating in Malaysia. Consequently, this study embarks on the following objectives:

- To identify the best practices hotel with regards to efficiency.
- To determine the factors contributing to efficiency of the hotel.
LITERATURE REVIEW

Measurement of Efficiency

Efficiency measurement is an integral part of management control. It can be used not only as reference in decision making, but also as the basis for improvements. Therefore, measurement of efficiency has becomes an important and broad-scope subject. Managers, economists and others researches have attempted to accurately measure the efficiency of the hotel industry for many years using various approaches.

There are various methodology employed in efficiency measurement. Some of the researches focus on performance indicators such as cost-volume-profit analysis (Fay et al., 1971; Jaedicke et al., 1975 and Coltman, 1978), the lodging industry's sales receipt information (Van Doren & Gustke, 1982), the concept of perishable asset revenue management to measure performance (Kimes, 1989), lodging index (Wassenaar & Stafford, 1991), the RevPar (revenue per available room) index (Ismail et al., 2002), a revenue performance indicator (Baker & Riley, 1994), and an efficiency indicator (Wijeysinghe, 1993). Cost-volume-profit analysis was introduced as a method to provide information on the profitability of a firm in relation to volume. It is useful in the business planning phase as well as in testing or evaluating forecast and in breakeven analysis. Besides, it can be applied to analyze an individual firm performance and used at a regional level to compare various types of firms (Fay et al., 1971; Jaedicke et al., 1975 and Coltman, 1978).

Lodging industry's sales receipt information was used to evaluate industry performance (Van Doren & Gustke, 1982). The researchers examined economic growth in various states and select standard metropolitan statistical areas by evaluating aggregate receipts and per capita receipts. Anderson et al. (1999) indicated that this technique does not examine cost efficiency issues and does not provide a method of determining optimal performance. Although this technique is useful in assessing hotel performance in aggregate, it provides no firm specific measures of performance. Meanwhile, Kimes (1989) applied a technique based on the concept of perishable asset revenue management to measure performance (PARM) in the hotel industry. PARM can be used by management to determine the optimal trade off between average daily rates and occupancy rates. PARM technique has the basic idea of charging the right price in order to select the right customers to fill each room while achieving the highest possible revenues.

On the other hand, Wassenaar & Stafford (1991) suggested the use of a lodging index indicator for the hotel/motel industry. The authors defined lodging index as the average revenue realized from each room, vacant or occupied, within a region or city during a given time period. The index is particularly effective for local travel destinations where average occupancy and room rates are not available. The index combines average occupancy and room rates into a single indicator but this method does not examine how efficiently firms are controlling costs. Baker & Riley (1994)
introduced revenue performance indicator for the lodging industry such as the revenue/wage, gross profit/revenue, and net profit/revenue. While, Wijeysinghe (1993) presented a method for calculating breakeven room occupancy that provides accurate calculations together with a system of effective management. The general indicator to hotel efficiency (GITHE) was suggested to analyze the source of loss and thus give a better control of business.

These performance indicators provide important and useful information for benchmarking based on accounting and financial performance in terms of simple ratios, but there are in fact many factors relative to hotel performance, and obviously these indicators have not taken into account the mix and nature of services provided. As suggested by Anderson et al. (1999), measuring the relative efficiency of a hotel requires methods that are more sensitive than accounting and financial ratio measures and that can explicitly consider various inputs and outputs of the hotel.

**Data Envelopment Analysis**

Some researchers employed data envelopment analysis to measure efficiency. Data envelopment analysis (DEA) is a non-parametric technique that was first introduced in the literature in 1978. Charnes, Cooper and Rhodes (1978) are the first who introduced the data envelopment analysis to describe the mathematical programming approach to the construction of production frontiers and the measurement of efficiency of developed frontiers. The authors proposed a model (CCR, named after the authors) that had an input orientation and assumed constant returns-to-scale (CRS). However, the later study has considered alternative set of assumption. Banker, Charnes and Cooper (1984) first introduced the assumption of variable returns-to-scale (VRS). This model is known as the BCC model.

Apart from the CCR and BCC models, there are five other basic DEA models, less common in the literature: the additive model (Charnes, Cooper, Gollany, Seiford & Stutz, 1985), the multiplicative model (Charnes, Cooper, Seiford & Stutz, 1982), the cone-ratio DEA model (Charnes, Cooper & Huang, 1990), the assurance region DEA model (Thompson, Langemeier, Lee & Thrall, 1990), and the super-efficiency model (Anderson & Peterson 1993). The additive model was used to identify input excesses and output shortfalls simultaneously. The cone-ratio and the assurance region models include a priori information (for example, experts’ opinion, opportunity costs, rate of transformation or rate of substitution) to restrict the results to the single best-performing DMU (assurance region model) or linking it with multi-criteria analysis (cone-ratio model). On the other hand, the super-efficiency model gives efficiency scores by eliminating the data on the DMU to be evaluated from the solution set. For the input model this can result in values which give the DMU the status of being “super-efficient”. These values are then used to rank the DMUs and thereby eliminate some (but not all) of the ties that occur for efficient DMUs.

Other developments of DEA include the disentangling of technical and allocative efficiency (Anderson, Fok & Scott, 2000) and the Malmquist TFP index (Malmquist,
1953). Anderson, Fok & Scott (2000) defined allocative inefficiency as deviations from the efficient frontier that result from the failure of managers to use the optimal input mix in the production process. Whereas technical inefficiency as the product of pure technical inefficiency and scale efficiency in which pure technical represents failure to fully utilize inputs, given their allocation; and scale inefficiency represents failure to operate at constant returns to scale. In contrast, Total factor productivity (TFP) measures productivity by obtaining an output-to-input ratio value which take into consideration all significant inputs and outputs. TFP approach is useful theoretically and empirically. TFP indices bring a strong theoretical basis in economic to its analysis as it can be derived from the theory of production functions. While from the practical perspective, TFP indices are easier to understand than other nonparametric indices (Nyshadham & Rao, 2000). The Malmquist TFP index gained importance mainly because it can be calculated without price data, a distinct advantage if price information is unavailable or if prices are distorted.

The two scientific methods used to analyze efficiency quantitatively are the econometric frontier and DEA. However, both methods have their advantages and drawbacks. Unlike the econometric stochastic frontier approach (Anderson et al. 1999), the DEA allows the use of multiple inputs and outputs (Bell & Morey 1995; Morey & Dittman 1995). Moreover, since it is estimated with a nonparametric methodology (DEA), there is no need to impose any functional form on the data, or to make distributional assumptions for the inefficiency term.

Both methods assume that the production function of the fully efficient decision unit is known. In practice, this is not the case and the efficient isoquant must be estimated from the sample data. Therefore, the frontier is relative to the sample considered in the analysis. DEA is applied to unit assessment of homogeneous units such as banks, hospitals and hotels. The unit of assessment is normally referred to as a decision making unit (DMU) which converts inputs into outputs. The identification of DMUs, inputs and outputs in an assessment is as difficult as it is crucial (Barros, 2005).

The DEA approach represents a method by which non-commensurate multiple inputs and outputs of an entity can be combined objectively onto an overall measure of organizational efficiency. DEA is also a benchmarking technique that assesses the relative efficiency of decision-making units. Researchers interested in service industry performance have applied DEA to some sectors including banking (Angelidis & Lyroudi, 2006), nursing (Hsu & Hu, 2007) and insurance (Mahajan, 1991).

**DEA-Based Studies in Hotel Industry**

In the tourism literature, the analysis of efficiency is limited to a small number of studies, which focus the analysis on micro-units (e.g., hotels, corporate travel departments, etc.). Among the earliest, Morey & Dittman (1995) used data envelopment analysis to evaluate the general-manager performance of 54 hotels of an American tourism chain for the year 1993.
DEA was also used by several other researchers in hotels. Sanjeev (2007) evaluated the efficiency of 68 hotel and restaurant companies operating in India using the DEA methodology. The study found that the average score for all the companies as a group stands at 0.73 and thus, the hospitality industry is perceived as doing well.

Hwang & Chang (2003) are using data envelopment analysis and the Malmquist productivity index to evaluate the managerial performance of 45 hotels in 1998 and the efficiency change of 45 hotels from 1994 to 1998. The authors found that there was a significant difference in efficiency change due to a difference in sources of customers and management styles. Barros & Mascarenhas (2005), again using data envelopment analysis, measured the technical and allocative efficiency of 43 hotels in Portugal for the year 2001. Whereas Anderson et al. (2000) used DEA-stochastic frontier approach to estimate average and firm-specific efficiency level in 48 hotels.

Meanwhile some studies employed DEA with other innovative measures to evaluate efficiency. Sun (2004) measured the hotel performance of 47 international tourist hotels in Taiwan for the period of 1997 to 2001 on various dimensions. The researcher used a production approach to design three performance models, which are managerial performance, room department performance and catering department performance. An exhaustive survey coupled with DEA has been done by Barros (2005) to evaluate the efficiency of individual hotels belonging to the Portuguese state-owned chain, Pousadas de Portugal. The author found that this technique can be used for the analysis of intrachain comparative hotel efficiency as well as to examine the competitiveness of the chain as a whole.

**Variable Identification (Inputs and Outputs)**

Bell & Morey (1995), looked at hotel efficiency, evaluated 31 travel departments and estimated their efficiency ratios using frontier models with the help of DEA. The researchers used four inputs: (1) actual levels of support costs (fees, labor, space, and technology), (2) actual levels of expenditure on travel (hotel, flight, and car rental charges), (3) level of environmental factors (means of negotiating discounts, percentage of trips with commuter flights required), and (4) nominal levels of other expenditures. The level of service provided (excellent and average) was used as the only outputs.

Meanwhile, Morey and Dittman (1995) also probed the efficiency of 54 hotels using DEA. The authors treated nine inputs: (1) salaries, (2) energy costs, (3) fixed market expenditure, (4) room division expenditure, (5) non-salary expenses with property, (6) non-salary expenses with administrative work, (7) non-salary expenses with variable advertising, (8) payroll and related expenses for administrative work, and (9) salaries and related expenses with variable advertising. Whereas, four outputs were selected:
(1) market share, (2) rate of growth, (3) total revenue, and (4) level of service provided.

On the other hand, Johns, Howcroft and Drake (1997) used simple inputs and outputs that have no ratio or composite data. The researchers preferred non-financial data to be used in the analysis. The following four inputs and three outputs were being employed: (1) number of room nights available, (2) total labor hours, (3) total food and beverage costs, (4) total utilities cost; and (1) number room nights sold, (2) total covers served and (3) total beverage revenue. The use of the financial data such as beverage revenue, food and beverage material costs and utility costs was inescapable but their use were justified on the basis that they were constant across the country and constant with respect to time.

By using the DEA approach, Anderson et al. (2000) also evaluated the efficiency of 48 hotels. The authors estimated their allocative and technical efficiency by using cross-sectional data on prices, inputs, and outputs. Five inputs were chosen: (1) number of rooms, (2) full-time equivalent workers, (3) total gaming-related expenditure, (4) total expenditure on food and beverages, and (5) various other expenditures. However, only two outputs were considered: (1) total revenue and (2) other revenue. While, Barros (2004) analyzed the efficiency of a Portuguese public-owned hotel chain, ENATUR by using a stochastic cost frontier. The researcher measured the price of three inputs: (1) price of labor, (2) price of capital, and (3) price of food. To compute the output, the value of sales and the number of nights occupied were being used.

**METHODOLOGY**

This research will apply a non-parametric approach, Malmquist TFP productivity index to measure the productive efficiency of selected Malaysian hotels. This index represents TFP growth of a DMU, in which it reflects (1) progress or regress in efficiency along with (2) progress or regress of the frontier technology between two periods of time under the multiple inputs and multiple outputs framework (Cooper, Seiford & Tone, 2007). This study employs the output-based approach where the question “By how much can output quantities be proportionally expanded without altering the input quantities used?” can be asked. In this study the productivity change is decomposes into two components namely, technological change (TECHCH) and technical efficiency change (EFFCH). Technical efficiency change shows that the hotel can be more productive by utilizing the existing technology and economic inputs more efficiently. Technological change refers to the growth in total factor productivity (TFP) as a result of the technological advancements and innovations in the hotel system.
Malmquist productivity index measures the TFP growth between two data points by calculating the ratio of distances of each data point relative to a common technology. Fare et al. (1994) specifies an output-based Malmquist productivity change index between period t (the base period) and the period t+1 is given by:

\[ M_0 (y_{t+1}, x_{t+1}, y_t, x_t) = \left[ \frac{d_0^t (x_{t+1}, y_{t+1})}{d_0^t (x_t, y_t)} \times \frac{d_0^{t+1} (x_{t+1}, y_{t+1})}{d_0^{t+1} (x_t, y_t)} \right]^{1/2} \]

where \( d_0^t (x_{t+1}, y_{t+1}) \) represents the distance from the period t+1 observation to the period t technology. A value greater than one indicates a positive TFP growth from period t to period t+1 while a value less than one indicates a TFP decline. The decomposition as follows:

Technical efficiency change = \( \frac{d_0^t (x_{t+1}, y_{t+1})}{d_0^t (x_t, y_t)} \)

Technological change = \( \left[ \frac{d_0^t (x_{t+1}, y_{t+1}) \times d_0^{t+1} (x_{t+1}, y_{t+1})}{d_0^t (x_t, y_t) \times d_0^{t+1} (x_t, y_t)} \right]^{1/2} \)

The Malmquist TFP index can be written as:

\[ \text{TFP} = \text{EFFCH} \times \text{TECHCH} \]

Technical efficiency change measures the change in efficiency between current (t) and next (t+1) periods, while the technological change (innovation) captures the shift in frontier technology. In addition, the technical efficiency change can be further decomposed into a pure efficiency change (PECH) and a scale efficiency change (SECH) that reflects the use of sup-optimal scale of operations by firms, as below.

\[ \text{TFP} = (\text{PECH} \times \text{SECH}) \times \text{TECHCH} \]

Input and Output Measures

For the successful application of DEA, careful identification of inputs and outputs is important. Although any resources used by DMU can be included as input, only six inputs will be chosen for this study. Inputs identified are number of room nights available, number of employees, book value of the property, total operating expenses, non-operating expenses and food and beverage costs. Whereas six outputs selected including number of room nights occupied, number of guests, average occupancy rate, total operating revenues, other revenues and food and beverage revenues. Table 1 listed both inputs and outputs variables to be incorporated in this study. The number of observations and the variables used will have to adhere to the DEA convention (Raab & Lichty, 2002) that the minimum number of decision making units is greater than three times the total number of inputs and outputs.
TABLE 1: INPUTS AND OUTPUTS MEASURES

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Number of room nights available</td>
<td>• Number of room nights occupied</td>
</tr>
<tr>
<td>• Number of employees (full-time equivalent employees)</td>
<td>• Number of guests</td>
</tr>
<tr>
<td>• Book value of the property</td>
<td>• Average occupancy rate</td>
</tr>
<tr>
<td>• Total operating costs (employee salaries, room costs, utilities, maintenance fees and other relevant operating costs)</td>
<td>• Total operating revenues</td>
</tr>
<tr>
<td>• Other expenses</td>
<td>• Other revenues</td>
</tr>
<tr>
<td>• Food and beverage costs</td>
<td>• Food and beverage revenues</td>
</tr>
</tbody>
</table>

The variables selected were based on the reviewed literature and the availability of the data. For example, total operating expenses including employee salaries, room costs, utilities and maintenance fees that affect the profitability of hotels will be viewed as input. While on the output side, total operating revenues that significantly influence the financial efficiency of hotels will be included. As the profit measure alone might not be a good indicator of how efficiently resources were used to provide customer services, the average occupancy rate will also be included as output, because it reflects how efficiently room capacity was utilised as a result of invested expenses.

In order to maintain the homogeneity of the hotels for equitable comparisons, 50 of the hotels registered with the Malaysian Association of Hotels and rated from 1-Star to 5-Star based on the Star-Rating hotel classification schemes and operating for the year 2002 to year 2006 will be chosen for this study. These hotels are geographically dispersed over Peninsular Malaysia and East Malaysia. Panel data covering the observations on the input and output variables for all decision making units in all time period will be obtained from the Companies Commission of Malaysia. The hotels data in the report are commonly deemed valid and reliable. However, some hotels whose data was unavailable from the Companies Commission of Malaysia report will be derived through web-search and interview with the hoteliers. The panel data will be used in this study to determine the Malmquist productivity index of the hotels in Malaysia. The TFP indexes of hotels will be computed using the DEAP program (Coelli, 1996). Figure 1 shows the proposed method for the collection of the hotel statistical data.
FIGURE 1: SOURCES OF THE HOTEL STATISTICAL DATA

MANAGERIAL IMPLICATION

As this research attempts to evaluate the efficiency of the hotel sector, the results of the study could be useful to the hoteliers. This research offers an option for managers looking to accurately assess efficiency or productivity. This research will provide Malaysian’s hotel operators with insights into resource allocation and their competitive advantages. The assessment results will assist the hotel management in delivering better and efficient services to the customers.

The results of this study will separate the most efficient hotels from the non-efficient ones and will identify the top performers in the hotel sector. Thus, the study allows managers and researchers to identify hotels that are relatively efficient by comparing a group of hotels. This study also able to segregate the participating hotel into quadrant of efficiency. The findings could benefit hotels management seeking performance improvement in which they could benchmark practices being adapted by the most efficient hotels. The information could potentially served as a guide for other service industry to investigate into performance measurement.

CONCLUSIONS

This paper has provided a review of previous literature for the efficiency measurement of hotels. While there has been extensive literature examining the efficiency of US, European, Taiwan and India hotels over the recent years, the empirical work on Malaysia hotels is still lacking. This paper attempts to examine the Malaysian hotels efficiency by employing a DEA model that take into consideration multiple inputs and outputs in determining overall efficiency. The Malmquist TFP index which can be decomposed into technical efficiency change and technological
change is important in performance measurement as it will help in the determination of the factors contributing to the efficiency of hotels.

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HALAL NUTRACEUTICAL MARKET: ISSUES AND CHALLENGES

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ABSTRACT

The growing nutraceutical sector constitutes the interfacing of the food and the healthcare industries. The value worldwide is estimated to be USD 1.3 trillion and locally around RM 3.5 billion. The increased interest in quality healthcare product has generated new and innovative ways in presenting the products to the consumer. In halal products apart from quality, safety and efficacy issues, the niche lies in the implementation the concept of halalan toyyiban pertaining to the source and manner of preparation conforming to the tenets laid down by the teaching of Islam. Issues are related to sourcing, handling, processing, manufacturing and labeling adhering to rulings and standards like HAACP and GMP established in regulating, control and registration of the products. The challenges to be addressed relates to standardizing procedures and generating acceptable parameter standards apart from specialized expertise, and training of personnel befitting the needs of the industry.

INTRODUCTION

Nutraceuticals usually refers to healthcare product formulated in pharmaceutical dosage forms like capsules or tablets and carry a limited health claim. They are produced under Good Manufacturing Practices conditions and are currently used as evidence based healthcare products providing protection against chronic disease conditions or having physiological benefits. Examples are flavonoid antioxidants from various herbs (eg misai kucing, pegaga), beta-carotene from palm oil, anthocyanins from berries etc. Many botanical and herbal extracts such as lingzhi, tongkat ali, kunyit, etc. have been developed as nutraceuticals.

Numerous claims on nutraceuticals are being researched and many citations are available via PubMed to ascertain their foundation of basic research. Examples of claims made for sinensetin flavonoids from misai kucing as an antioxidant, soluble dietary fiber products, such as psyllium seed husk for reducing hypercholesterolemia,
broccoli (sulfuraphane) as a cancer preventative, and soy isoflavonoids for arterial health.

The food and the pharmaceutical industries often add nutraceuticals as nutrient premixes or nutrient composition in their products.

Burrill & Co., reported that the size of the global nutraceutical market hits USD 210 billion in the year 2006, with the functional food having 37% market share, health supplements 32%, natural and organic foods 22%, and natural personal care 9%. The Burill Nutraceutical Index continued its upward trend with a 19% growth by the end of 2006. The same index has been outperforming the NASDAQ and DJIA Index, with an increase of 250% since 2002.

The Malaysian natural products industry is worth about RM 8 billion in 2005, consisting of flavours and fragrances at RM 2.5 billion, Pharmaceuticals/Nutraceutical at RM 1.4 billion, Herbal Remedies at RM 3.3 billion. The market is expected to reach RM 10 billion by 2010. (Source MARDI/MHC)

In view of the huge economic value and potential of nutraceuticals, certain value added features must be looked into as to ascertain unique niches areas and capabilities are in place for Malaysia to benefit greatly in this competitive area.

This article aims at looking into the composition of nutraceutical products and determines if any of the components present a problem for the Muslim consumers and the step taken to overcome the problem.

Halal foods are food consumed by Muslims that meets the Islamic dietary code. Similarly, Jews consumed kosher food. The terms halal and haram are used by Muslims to describe food. Permitted or lawful is called Halal and forbidden or unlawful is called haram. The Islamic traditions allow one to consume a questionable product as a medicine under compulsion, but consumers generally avoid knowingly taking anything that is religiously doubtful. For example, taking a prescription medicine contained in a prohibited gelatin capsule made of porcine gelatin. Muslim consumers consider porcine gelatin haram, and it is unacceptable.

Even though medicine is considered exempt from halal food regulations but various efforts are ongoing to research into the area of halal pharmaceuticals as seen in the case of halal vaccines. Alcohol-free products (e.g., cough syrups) are sought after by many Muslim consumers and they also may ask the pharmacist for tablets rather than gelatin capsules.

In halal products apart from quality, safety and efficacy issues, the niche lies in the implementation the concept of halalan toyyiban pertaining to the source and manner of preparation conforming to the tenets laid down by the teaching of Islam.
General guidelines for the production of nutraceuticals usually conform to standards of current Good Manufacturing Practices (GMP). Nutraceuticals often are composed of botanicals and plant extracts and formulation using ingredient that are animal-derived has to be avoided. The rich healthcare traditions of Islamic, Chinese and Indian civilizations utilizes mostly botanical elements for centuries, such as black seed in the Islamic tradition, ma huang in Chinese culture and gotu kola in India.

TABLE 1: EXAMPLES OF INGREDIENTS TO WATCH

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>SOURCE</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flavors and colorants</td>
<td>Alcohol or ingredients from haram animal origin, in the formulations.</td>
<td>Halal alternatives are available.</td>
</tr>
<tr>
<td>Beta-carotene</td>
<td>often use small quantities of gelatin to encapsulate the beta-carotene and to protect its color and other characteristics</td>
<td>Some companies use fish gelatin for encapsulation, which makes the product halal. Manufacturers also may use halal gelatin or plant gums as encapsulating materials.</td>
</tr>
<tr>
<td>Gelatin</td>
<td>Commonly used to make capsules, both softgel and two-piece hard shell from porcine gelatin</td>
<td>Kosher-certified gelatin (bovine and fish) also is available. However, gelatin-free products made from vegetable materials could be halal, kosher as well as vegetarian (vegan)--all at the same time Halal gelatin, cellulose or starch can be used instead of porcine gelatin.</td>
</tr>
<tr>
<td>Stearates</td>
<td>From animal sources may be used as free-flow agents in powders, or tableting aids in tablets</td>
<td>For halal and kosher products, manufacturers can use stearates obtained from plant sources</td>
</tr>
<tr>
<td>Tweens (a series of synthetic emulsifiers)</td>
<td>Sometimes used to coat and polish tablets.</td>
<td>Vegetable-derived tweens should be used in halal and kosher products</td>
</tr>
<tr>
<td>Glycerin</td>
<td>From non halal sourced may be used in the manufacture of capsules and other products.</td>
<td>Glycerin of plant origin can be kosher and halal-suitable for such applications.</td>
</tr>
</tbody>
</table>

TABLE 2: EXAMPLES TYPES OF PRODUCTS

<table>
<thead>
<tr>
<th>PRODUCTS TYPE</th>
<th>ISSUE</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tablets.</td>
<td>Tablets may be coated with gelatin (gel tabs) or with</td>
<td>Manufacturers should use halal- or kosher-certified gelatin and/or plant-originating lipids. Sugars and plant</td>
</tr>
<tr>
<td>Specialty Lipids and Polysorbates</td>
<td>Proteins such as zein also may be used as a tablet-coating material in both kosher and halal products.</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Liquid supplements and drinks</strong></td>
<td>Many liquid formulations are standardized with ethyl alcohol, as a preservative or solvent</td>
<td></td>
</tr>
<tr>
<td>Alternatives such as mixtures of propylene glycol and water may be used. Whereas there are minimal restrictions for ethyl alcohol in kosher products, the amount of residual alcohol in the final halal finished product must be reduced to an insignificant level.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Softgel capsules</strong></td>
<td>One-piece soft capsules used to be made exclusively from gelatin</td>
<td></td>
</tr>
<tr>
<td>They also can be made with vegetable ingredients such as modified starch, cellulose gum and other plant gums. Halal- and kosher-certified bovine and fish gelatin also is available for this purpose. Besides the main ingredient, softgel capsules may also contain glycerin or fat-derived chemicals, which, for halal and kosher products, should be from plant sources.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Two Piece Hard-shell Capsules.</strong></td>
<td>hardgel capsules used to be made exclusively with gelatin</td>
<td></td>
</tr>
<tr>
<td>Vegetarian capsules especially for nutritional supplements made from modified cellulose, modified starches or other plant materials. Glycerin and other ingredients may be used as processing aids. All such ingredients should be from vegetable or petroleum sources. Halal- or kosher-certified bovine or fish gelatin also may be used. Other incidental ingredients should also be halal- and/or kosher-suitable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Halal-labeled products are much sought after in many countries, including the U.S. Muslim consumers are looking for and demanding halal certification as an authoritative, reliable and independent testimony to support a food/nutraceutical manufacturer's claim that his products meet the certain religious requirements. Consuming such products or foods develops greater customers confidence spiritually.
Malaysia aspires to be the global reference centre for Halal integrity. As in the Third Industrial Master Plan, the Malaysian Government has envisaged that by 2008 Malaysia will be the centre for:

• The production and distribution of halal products;
• Halal service providers;
• Reference on the halal standard; and
• R&D for halal matters

Therefore, rightfully, the Halal Hub Master Plan identifies two development objectives for Malaysia. Firstly, Malaysia will become a global hub in Halal know-how, focusing on R&D and best practices in products, processes, standards and certification.

Secondly, to create greater economic impact, Malaysia will focus on accelerating growth in a number of consumer goods industries that are relevant to Halal value proposition, namely specialty premium processed food, organic/natural personal care products and Halal ingredients. These two objectives are inter-related and equally important. In order to achieve sustainable economic impact, Malaysia needs to develop key industries that will enable it to become a leading producer of identified Halal products. And in order to generate international confidence and distinction of the products produced in Malaysia, it is important that Malaysia practices absolute Halal integrity based on a complete but pragmatic ‘halalaness’ that is adhered to at each level of the production value chain. At the same time, Malaysia must be seen to uphold the true fundamentals of Halal – a value that has clear benefits to the consumers (be they Muslim or not) in that it promotes good health, hygiene and nutrition standard. This standard must be strictly enforced and monitored that it should enable an acceptance without doubt of Malaysian products and services.

Although it cannot be confidently ascertained that Malaysian products are currently accepted without doubts by Muslims globally (given a few issues such as our stance on stunning and use of alcohol in food; and the fact that Muslims differ in their understanding of Halal due to different cultural practices, beliefs etc), Malaysia is gaining recognition as a force to be reckoned with in the development of Halal both in terms of knowledge and industry. The establishment and continued promotion of Halal undertaken by Malaysia via various international events such as World Halal Forum (WHF) and Malaysian International Halal Showcase (MIHAS), represents the commitment of Malaysian Government to lead in the development of Halal-related industries.
More importantly, the setting up of Halal Industry Development Corporation (HDC) in 2006 formalise this commitment and position Malaysia in the lead in promoting Halal globally.

At the same time, Malaysia already has a few established institutions committed to the development of Halal knowledge locally and internationally. Institutes such as Halal Product Research Institute (HPRI), University Putra Malaysia; Halal Industry Research Centre, International Islamic University of Malaysia (IIUM); and the Institute of Islamic Understanding of Malaysia (or Institut Kefahaman Islam Malaysia, IKIM) are already actively involved in the development of Halal knowledge locally and internationally. Additionally, Department of Chemistry of Malaysia (DOC) has been playing an active role in Halal product composition analysis. Backed by deep experience in composition analysis (average DOC researcher has 15-20 years of experience in traceability study), it is now regarded as one of the key research centres in the region and has been appointed Asean Reference Lab for GMO testing (which has 99% similarity to Halal testing) since 2002.

However, there are still many challenges that need to be addressed before Malaysia can fully develop itself as the global reference centre for Halal knowledge. Currently Malaysia faces challenges in many fronts – R&D, standards, certification, education and enforcement and monitoring - and these challenges must be critically addressed and improved whilst moving forward.

Undoubtedly, it is only when Malaysia is able to develop and apply the concept of absolute Halal integrity that we mentioned above, that it can start to

**Building an ‘absolute Halal integrity’**

In order to create an absolute Halal integrity, Malaysia must be able to position itself as the global reference centre for Halal know-how and be able to address all aspects of Halal knowledge and its application. We envisage six important elements that make up Halal knowledge creation and its application to the industry and the consumers.

They are:

I. Pragmatic formulation of fatwa on Halal especially in emerging areas such as genetic engineering of plant and animals and use of porcine based growth promoters in Halal animals; undertaken by knowledgeable Ulamas and well supported by research

II. Research and development to support formulation of fatwa - strengthen traceability analysis and identify new potential for Halal in both products and processes
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III. Development of Halal standards/guidelines that address emerging halal issues and are up-to-date with new technologies while remaining true to the fundamentals of Shariah

IV. Public service delivery on Halal matters i.e. Halal certification process, procedures and people

V. Strict enforcement and monitoring of standards and certification issued

VI. Education programmes to communicate and educate both producers and consumers on Halal matters

Description of the mentioned elements.

I. Formulation of the Fatwa

I.1 Overview

Formulation of fatwa is one of the most important elements in Halal knowledge creation and application. A product is only Halal (or haram) when a fatwa has been formulated and published to determine that it is such. As fatwas are considered official views of the Government in religious matters, they are put under the strict purview of Jawatankuasa Fatwa Majlis Kebangsaan Bagi Hal Ehwal Ugama Islam Malaysia (the National Fatwa Council) which reports directly to the Yang Dipertuan Agong through the Majlis Raja-Raja (Council of Rulers). Jabatan Kemajuan Islam Malaysia (JAKIM) acts as the Secretariat to the Fatwa Council and its Research Division is tasked with the preparation and compilation of all research papers required for the formulation of fatwas. The Fatwa Council also coordinates fatwas passed at state level when these fatwas are to be applied nationally (Note: religious matters fall under the purview of state governments and religious rulings are passed through Dewan Undangan Negeri after they have been discussed at state-level Jawatankuasa Perundinan Hukum Syarak. However, the Fatwa Council is responsible to coordinate all the rulings to ensure consistent adoption at the national level).

I.2 Challenges

Although no specific detailed assessment of the Fatwa Council or fatwa formulation process was undertaken by Ethos, we believe that there are a few key challenges that need to be addressed moving forward. These challenges include people and research support required.

- People issues. The members of the Fatwa Council are made up by Islamic scholars with deep understanding of Shariah. More specifically, they include a Chairman (collectively appointed by the members); all state Muftis or the person responsible for religious matters in the state; five Islamic scholars appointed by the Majlis Raja-Raja;
a Muslim law practitioner; and the Director General of JAKIM. While the members are currently very knowledgeable Islamic scholars, there exist contentions amongst members in terms of their understanding of Halal especially in the gray areas such as stunning, use of alcohol, and emerging areas such as genetically modified products. At the same time, it is also argued that the Fatwa Council is very strict in their understanding of religious matters and not pragmatic enough to understand the delicacy of issues as far as the industries or consumers are concerned. This is so because there is currently limited representation from the industry that can assist Council members to understand better the requirements and challenges faced by the industries. It is argued that while being strict can be good, it may impose some negative impacts on the industry if this “strictness” cannot be well supported by strong and practical research/understanding.

- Research support. In order for the Fatwa Council to be able to make informed decision on the halal and haram of a product, services, processes, or procedures; they must be well supported by strong research conducted on the specific matter. We believe that currently this research support is still lacking especially in the emerging areas such as porcine based hormones injected in Halal animals; plants that are implanted with the genes of haram animals; use of haram-animal droppings in fertilizers, genetically modified animals or plants and so on. Currently, although research is undertaken via various agencies involved, such as DOC, and MOH; it is very much dictated and coordinated by JAKIM which may not have the scientific knowledge required. Although JAKIM is assisted by other bodies including local universities, the structure is ad-hoc and may not be able to produce required understanding in a timely manner.

I.3 Strategies moving forward

We believe that moving forward; the National Fatwa Council can be further strengthened via the following recommendations:

- Deepen skills and relevancy of fatwas through collaboration with industry players, academics and other international fatwa councils.

- We believe that the National Fatwa Council should invite industry experts/consumer representative on a case-by-case basis where such need arises in order for them to formulate Fatwas that are more relevant and are in line with the requirements and needs of the producers and consumers. While this practice is arguably ongoing, a more structured approach is required.

- At the same time, stronger coordination and partnership must be developed with other Islamic scholars locally and internationally. Locally, there should be a more structured partnership with various academic institutions such as HPRI and IIU to ensure that knowledge shared is up-to-date and relevant to the industry and the consumers. Internationally, more cohesive and structured relationships need to be
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developed with various Islamic councils, research institutes, and renowned Islamic scholars to ensure that the stance taken by Malaysia are in line with views adopted by Muslims internationally. This is also important to ensure that we are up-to-date in our understanding and view of the global issues. This is undoubtedly key if
Malaysia is to become the global reference centre for Halal knowledge. If our understandings are very narrow and are not in line with the global views, it may not be possible for Malaysia to project itself as the global centre for Halal

• Malaysia to create a reference centre for halal matters which can potentially include a databank of Fatwas passed on halal or haram globally – to be fully aware of the different understandings and views and to be able to provide a constructive comparison on the matters based on strong fundamentals of Shariah knowledge and research.

• Fatwas formulated to be strongly supported by R&D.

• We propose that a specific body (an R&D centre) be appointed to undertake research on Halal matters and this shall not be generally placed with other Shariah matters in JAKIM. As research on halal for example in food and cosmetics are more scientific and would require the expertise of food technologists/scientists, biologists, pharmacists and so on, we believe that a body such as Department of Chemistry (via a specific halal unit) and HPRI (working together with Ministry of Health and other relevant authorities) be specifically tasked to conduct the research. The research conducted must be able to effectively address emerging issues in halal such as use of porcine based growth promoter in halal animals. In other words, research must be conducted by a body that has all the relevant expertise and skills required working very closely with the industry/consumer on one hand and the National Fatwa council on the other

• HDC will be responsible to coordinate the research work required and to feed the information to the National Fatwa Council anytime a finding is made and not only when a request for clarification is put forward by the Council of Rulers or the public. In short, HDC will undertake the coordination role and act as a mediator between the National Fatwa council, producers/consumers and the research institutes and to provide necessary funding for research activities.

II. Research and development in building halal related knowledge

II.1 General overview

R&D in halal can generally be divided into three:

I. product traceability/composition analysis;
II. research on product/process development i.e. research on potential of doubtful products/processes to be made halal; and

III. scientific proof of halal requirements. Malaysia has developed some expertise in this area especially in traceability/composition analysis with both DOC and HPRI conducting various researches in this area.

DOC has been in existence since 1946 and is key in supporting the government in analytical science that provides solutions to various issues from crime investigations to food safety and composition analysis to product specification evaluation. It is now a well established research institution with 11 labs nationwide that are fully equipped with state-of-the-art technology; and strong human capital expertise and skills with 350 science officers (with more than 10 years of experience on average) and 530 technical support staffs. It has been accredited with ISO 17025 for lab set-up and methodologies used. At the same time, it has been appointed Asean Reference Lab for GMO testing (99% similarity to halal testing) since 2002.

DOC is currently used by JAKIM to conduct product composition analysis on various products and it also offers this service directly to the private sector. However, JAKIM believes that DOC is not very efficient and untimely in providing their assessment. It is claimed that DOC takes 2-3 months to provide a conclusive assessment/analysis when this can potentially be done in 1-2 weeks. JAKIM also claims that given its many other commitments, DOC may not be able to continue to provide strong commitment to halal analysis and that potentially a new organisation should be set up directly under JAKIM to undertake this role.

HPRI was established in 2006 under UPM after the restructuring of the Institute of Halal Food, and it is dedicated to the R&D of Halal products. The Institute of Halal Food came about following the introduction of “Halal and Haram in Food Processing” course in UPM in 1996.

HPRI is now recognised as one of the leading institutions in halal research in the region with many scientific findings under its belt such as the e-nose (an instrument that comprises an array of electronic chemical sensors and appropriate pattern recognition system, capable of recognising simple or complex odour or smell); the FTIR Spectroscopy (used to provide information on the molecular composition and structure of a diverse range of materials such as fats and oils); and Molecular Biology Techniques which uses DNA for species identification in food, amongst other things.

However, our assessment indicates that HPRI remains research driven and mainly academics. While it can play a strong role in halal research, it lacks the ability to commercialise its innovations and is not focused on applicability of the innovations to the industry. Additionally the team is very small (less than 10 at any one time) and mainly made up of research students. As
such we believe that it should remain a research institute although its research scope can be expanded to include focus on product and process development and scientific proof of halal requirements.

II.2 Challenges

We believe that R&D in halal matters is still very limited and mainly issue driven. There are several challenges that must be addressed before Malaysia can effectively move forward and build its strength in halal research and development. Key challenges identified include:

• No dedicated halal laboratory
• Lack of skills and expertise
• Limited innovations and commercialisation of technologies

II.3 Strategies moving forward

Given the importance of R&D in building strong know-how in halal and related matters, it is critical that this aspect of the development of an absolute halal integrity be given utmost attention by the Government. We believe that the following strategic initiatives will enable the creation of greater R&D expertise in halal in the country:

• Specify halal R&D as one of the focus areas for DOC and UPM
• Build skills and expertise in halal R&D at both public and private research institutions
• HDC to manage R&D funds, identify research areas, and assist in commercialisation of technologies

Set up dedicated halal research institutes

• While we are not recommending that a completely new dedicated halal laboratory to be established (as in JAKIM’s proposal to develop halal research centre in Enstek in Nilai, Negeri Sembilan), we propose that DOC and HPRI be appointed as key research institutes for halal matters for Malaysia.

DOC will focus on product traceability and to develop more advanced traceability methodologies beyond specific product composition analysis they are undertaking now. They will form part of the halal inspection body under JAKIM and will be responsible in developing traceability research to support the National Fatwa Council
and JAKIM; while continue to provide and promote their services to the private sector on a commercial basis. In order to strengthen DOC capabilities, a dedicated halal team will be established and will be funded by both MOSTI (as in current funding arrangement as DOC sits under MOSTI) and more specifically through R&D fund that will be channeled through HDC.

We believe that this recommendation will enable greater success in traceability research. As it is, product composition analysis is a very complicated and sophisticated research area with very high liability (if the findings are not correct, researcher can be brought to court for disseminating misleading or inaccurate information by both producers and consumers). We believe that DOC has existing capabilities to ensure greater integrity of the analyses conducted. It is not advisable for JAKIM to set up its own halal lab as testing requires strong human capital capabilities (and not just the financial ability to build a lab and purchase the equipment) that cannot be developed overnight.

- HPRI, on the other hand, will focus on halal research.

R&D initiatives relating to halal products and processes need to be stepped up e.g. research on halal alternatives for typically non-halal ingredients; and research on emerging issues in halal such as genetically modified organisms involving porcine or human genes. We believe that HPRI has ready expertise to lead in these researches. Although it is acknowledged that HPRI has also developed some capabilities in traceability analysis, the capabilities are still very academic and may take time before it can be commercially used. We believe that the strength of HPRI is in halal research and this should be further strengthened moving forward. In order to further develop HPRI as a leading halal research centre in the region, investments are required to upgrade its capabilities in terms of human capital, technological facilities and other infrastructure.

Develop skills and expertise in Shariah and science

- Key to the development of Malaysia as a global reference centre for halal knowledge is the availability of skills and expertise in both Shariah and science that are related to halal.

It is truly critical for Malaysia to develop high calibre Islamic scholars that are experts in scientific and religious matters.

- We propose that a scholarship scheme be established to develop high calibre Islamic scholars. HDC will manage the scholarship schemes and will select qualified Malaysian students to study at renowned universities locally and internationally. At the same time, strong collaboration will need to be established with the learning institutions to ensure that courses offered are relevant to the requirements of the industry and are able to fully expose the students to different technologies that can be adopted for the benefits of Halal research.

HDC to manage funds for R&D and assist in commercialisation of technologies
HDC will coordinate all research effort and will provide the required funding to support the investments to upgrade facilities and strengthen human resources and acquire technologies for DOC and HPRI. At the same time HDC will also manage and disburse funds for relevant research activities. It will also be responsible to coordinate and ensure relevancy of scientific studies to the industry and the consumers.

HDC will assist research institutes to successfully commercialise the technologies developed to ensure that the technologies created are able to reach wider user base. Additionally, we propose that public universities and research institutes be allowed to have privatised R&D arm to be more open to accept contract research work locally and internationally. Undoubtedly these commercial activities can further develop and promote Malaysia as a leading halal R&D centre internationally.

III. Halal standards and guidelines

III.1 Overview

MS 1500 was first introduced in 2000 and revised in 2004. It is currently the only specific standard that governs and prescribes the halal requirements for food production and food trade in Malaysia. It outlines the requirements for production, preparation, handling and storage of food and other food products that must be adhered to for the products to be considered halal. It is normally used together with MS:1480 that covers food safety regulations according to hazard analysis and critical point system (HACCP) and MS:1514 that outlines the general principles of food hygiene. There are undoubtedly other guidelines and control mechanisms used to monitor and ensure consistency and compliance of halal food in the domestic market such as Trade Description Act 1972, Section 15(1); Trade Description (use of Expression “Halal”) Order 1975; Trade Description (Marking of Food) Order 1975 and so on. Nevertheless it is a very general trade Act and does not cover specificity of halal requirements. It is argued that MS:1500 is one the most comprehensive halal standard available locally and internationally and that it has been used as a reference by many other countries such as Singapore and Thailand in developing their halal standards. It is well documented and fully endorsed by the Government as the governing halal standard for the country.

III.2 Challenges

However, we believe that although MS: 1500 is comprehensive and accurately covers all the fundamentals of halal food production requirements; there are a few challenges that need to be addressed.

These challenges include:
• MS: 1500 is mainly for food and does not cater for non-food consumer products such as nutraceuticals, cosmetics and personal care products; services such as logistics and new emerging technologies/industries such as biotechnology

• There exist a few contentions for example on stunning of animals before slaughtering and level of alcohol content allowed in processed food and beverages. MS: 1500 currently permits stunning of animal and mechanical slaughter of poultry which are not acceptable by Muslims in other countries such as the Middle East. At the same time JAKIM only allows an alcohol content of 0.01% in food products which is argued to be impossible to achieve especially in ingredients and flavourings of food products. Other countries such as Brunei allows higher alcohol content of 0.05% on the argument that this amount will still not intoxicate the consumers

• Halal standard is currently associated with Muslim requirements and not an assurance of health, safety and quality especially among non-Muslims. There is a perception that the standard is simply ‘religious’ and is not directly associated with the requirements on safety, hygiene and nutrition. While 69% of non-Muslims are aware that halal food does not contain pork or alcohol, only around 40% of Muslims relate halal to high quality

III.3 Strategies moving forward

In order to address the challenges outlined above, we have identified the following strategic initiatives:

• Develop specific halal standards for different industries such as halal ingredients standard; halal logistics standards and halal cosmetics and personal care standard; and they should strongly emphasis the elements of health and quality that are very important in the concept of halal and toyyiban. Development of these standards will allow the authority to have proper control mechanisms on the products that they are strictly examined before they can be made available to the consumers

• HDC and JAKIM, supported by DOC, HPRI, DSM and SIRIM, must work together to resolve the contentions that exist with the standard. Key to the resolution process is a scientific research that would provide proof of whether, for example, stunning is really beneficial to the animal or not. If it is proven that it is not, potentially Malaysia should not allow such practice to be adopted

• Link halal standard with other recognised international standards such as HACCP and GMP. We believe that this will promote awareness of the health and safety aspect of halal. In other words, while halal provides endorsement from Shariah perspective, making it permissible for Muslim consumption, HACCP provides endorsement of hygiene and quality of the products, and GMP provides endorsement of processes
involved in the manufacturing of the products. JAKIM can work together with Ministry of Health (MOH) to coordinate and implement the standards. Additionally for animal husbandry industry, there is a potential for the halal standard to be combined with certification system known as Veterinary Health Mark (VHM) currently implemented by Department of Veterinary Services (DVS). DVS is also in the process of launching Good Veterinary Hygiene Practices which will help in enhancing hygiene requirements in meat based food products.

III.4 Global halal standard

Different halal standards continue to be adopted by different countries and there exists serious confusion on the standards amongst Muslims and non-Muslims alike. Muslims around the world differ greatly in their understanding and interpretation of halal and haram. These differences arise from different mazhabs, school of thoughts, cultural practices and lifestyles adopted by Muslims globally. While theoretically it is beneficial for all Muslims to adopt and adhere to a unanimous halal standard, there is limited evidence currently to suggest consumers and certification bodies, or government to that matter, would willingly adopt this global standard. Before such effort can be confidently undertaken, we need to be able to assess data on consumer awareness and their valuation of different halal standards; consumers’ ability to differentiate the different standards; and whether they appreciate the differentiation enough to affect the purchasing decisions. Currently no such data is available. Additionally, analogous examples suggest that certification bodies that do not adopt the global standard and be accredited can also gain acceptance. They can continue to conduct their own branding and promotion efforts to differentiate themselves, creating acceptance of their standard/certification above and beyond accreditation.

Thus, we believe it does not make an economic sense for the Government of Malaysia to invest in creating a global halal standard as the investments and efforts required would be too significant and that potentially other Muslim country will also want to lead the integration of halal standards. Nevertheless, the Government can support private sector efforts if such initiative is to be undertaken. We believe that the development of Malaysia as a global reference centre for Halal does not require Malaysia to develop a unanimous global halal standard. What is more important is for our standard to be accepted as true to the fundamental of Shariah while being highly dynamic and pragmatic in that it addresses changing technologies and needs of the Muslims.

IV. Strengthening public service delivery in Halal certification

IV.1 Overview
Halal certification represents the interface between standards set and their applications to the producers and becomes a symbol of guarantee for the consumers. Currently halal certification is done by both JAKIM and JAIN (Jabatan Agama Islam Negeri), although JAKIM has been appointed as the sole certification agency for the country. More specifically, JAKIM handles applications of halal certification for products destined for national and international markets; while JAIN handles applications for products meant for local consumption or local markets. Policies relating to certification are formulated by JAKIM’s Halal Technical Committee with members that include Shariah experts, food scientists, conformity assessment experts and representatives from industry and consumer associations. Halal certification is undertaken by JAKIM mainly for the purpose of serving the Muslim community with halal products, produced and supplied in accordance to Shariah principles, and not for profit motives.

The application for Halal certification begins with the applying firm or individual filling out the appropriate forms. Different formats are used for different categories of applications – food products (producer of consumer products, distributor/trader, sub-contract manufacturer, repacking), food premise (operator of a food outlet e.g. restaurant or café), or abattoir. Essential to the completion of the application is the requirement that the applicant furnishes all the necessary documentation attesting to it as a registered entity, possesses the applicable prerequisite quality documentation (such as HACCP or GMP), as well as documentary proof of the halal status of ingredients contained in the products to be certified. Applicants will be informed of any incomplete documentation before their application is processed followed with the payment of a fee.

It takes 2-3 months for certification agency to issue certification though many argue that it sometimes takes up to six months or longer to obtain a certification leading to many companies issuing their own halal logo (which is currently allowed under the Trade Description Act)

Currently there are many challenges faced by Malaysia as far as halal certification is concerned. Mainly these challenges involve public service delivery issues such as inefficient process, unclear guidelines with lack of assistance from certification agency and unskilled officers, amongst other things. While we claim that our certification is sought by many, domestic and international data point that very few companies, even locally, come forward to apply for certification each year. Less than 1,000 companies do so each year and even then around 15-40% of applications failed or are rejected each year.

For Malaysia to develop itself as a global reference centre for halal, it is extremely important that these public service delivery issues be immediately addressed. While we believe that HDC can play a strong role in resolving these challenges, we do not propose that it takes over certification role from JAKIM for domestic certification, but to mainly focus on international certification. We believe that HDC should not be bogged down by certification issues especially at the domestic level. However it is hoped that the two agencies are able to work synergistically to enable effective and
efficient transfer of knowledge for the benefits of the industry, the consumers and the country as a whole.

It is believed that HDC can develop a more efficient process for international certification, assist in upgrading skills of certification officers and provide consultancy services to companies needing specialised assistance in applying for certification. HDC can undoubtedly play a role in promoting a more efficient certification process for international companies. This efficiency can then be replicated in JAKIM through a collaborative transfer of know-how.

IV.2 Challenges

While many companies that we interviewed claimed that halal certification is very important to them and that it would help increase their sales (30% of 410 companies surveyed by Merdeka Centre claim that sales increased by 1-25% after certification; 36% by 26-50%; 8% by 51-75% and 19% by 76-99%), number of applications for certification remain low. In 2005, 959 companies applied and this was merely 25% of estimated number of food and beverage companies of 3,811 for the year (assuming all applicants were in the food processing industry, which they were potentially not. Other source indicates that less than 1% of food service companies are certified). In 2006, the number dropped to 719 applicants. Additionally, while number of applicants remained small, number of applications approved was even smaller. In 2005, only 60% of applications were approved. The highest percentage for approval was only 85% in 2002.

Given the findings above, we believe that halal certification in Malaysia faces many challenges that must be immediately resolved.

IV.3 Key challenges include:

• Inefficient process. While application time may take 2-3 months on average, for larger companies with extended product lines, the application process can drag longer and take up to nine months or one year. Larger producers tend to view JAKIM as being very inefficient and lack proactiveness in assisting them with their applications. JAKIM often do not provide timely notice when there are deficiencies in the applications made.

• Unclear application guidelines. While general procedures and guidelines exist in terms of what applicants must do when submitting applications, the guidelines remain very broad. Some producers are faced with unique circumstances or unique products that are not adequately covered in the general instruction. It was argued that JAKIM was not able to provide more specified assistance and guidance on a case-by-case basis resulting to many applications being rejected. At the same time, there is confusion in terms of JAKIM and JAIN’s certification requirements. According to SIRIM report, while the Cabinet has decided that JAKIM is the sole halal certification body for the country, certification is still done at state level with some differences in the requirements, processes and procedures. Although the states have agreed to
harmonise their certification procedures by aligning fully to JAKIM’s system, there appears to be lack of effective coordination and enforcement of the policy. Also many states have yet to fully enforce the requirements of MS1500:2004 in their certification regimes

- Limited number of personnel and limited knowledge of personnel in charge of the industry. Based on the interviews conducted by Merdeka Center, there are approximately only 200-odd officers presently deployed within certification agencies (both JAKIM and JAIN) throughout the country. JAKIM (at the time of the interview in October 2007) was in the process of expanding its staff strength from 28 to 165 and this number would be expanded further to 228 certification officers by end 2008. In JAIN agencies the number is much smaller. Certain states such as Penang and Kedah only have 2 officers in charge of certification. This limited number of staffs undoubtedly imposes strong limitation on the efficiency of the certification agencies. Additionally, it is argued that certification officers lack both Shariah and industry/scientific knowledge. They are normally unable to explain why certain requirements are imposed nor are they able to understand the complexity of manufacturing processes involved or the scientific ingredients used

IV.4 Strategies moving forward

In order to address the challenges outlined above, we propose the following strategies moving forward:

- Develop a more efficient certification process. We propose that the following initiatives are adopted:
  
  - Application process to be made fully online including notification of deficiencies, acceptance or rejection. (While JAKIM claims that certification application is now fully online, applicants still need to send in supporting documents by mail and there have been many cases when these documents were 'lost in delivery'). However companies that do not have access to internet can still be allowed to apply manually and must be made to understand that their applications will take longer time.

  - Introduce a fast-track, self-assessment option for compliant companies. Companies that have applied for certification more than 3 times and have proven to be compliant can be allowed to do self assessment for certification. They will only need to inform JAKIM of the product and the ingredients used for a record. However, random checks need to be conducted to ensure that these companies are constantly monitored.
• Reduce time required for site inspection. Given more manpower, time required to do site inspection can be greatly reduced and more officers will be able to conduct it. At the same time, better cooperation with other agencies such as DOC and Ministry of Domestic Trade and Consumer Affairs (MDTCA) can provide more coordinated and structured approach to this procedure.

• HDC to develop more specific and efficient process for international certification (which can be replicated for domestic certification if required).

Note: Given that DOC capacity will also be increased via the setting up of a dedicated halal team, time taken for product composition analysis, which forms part of the application procedures, will also be greatly reduced.

• Provide clearer guidelines to applicants. The following initiatives can be adopted.

• Provide timely assistance to applicants on a case-by-case basis. We propose the setting up of a professional Customer Service Centre to cater for the needs and provide required assistance for the applicants. The centre can be run on a 24-hr basis if needed, staffed with highly trained personnel that are able to provide real time advice to the applicants. At the same time, HDC can offer consultancy services for companies that require more specialised assistance in complying to halal requirements be they international or local companies.

• Standardise halal certification procedures at state and national levels and make MS:1500 as mandatory national halal standards to be adopted by both federal and state certification agencies. Potentially this can be done via the development of Halal Act which MS:1500 will be part of.

• Increase number of officers and provide structured training to build knowledge/skills in both Shariah and industry matters. JAKIM is already working towards increasing the number of certification officers. As mentioned earlier, JAKIM plans to have 228 officers by 2008. Potentially the number of officers can be increased to around 300 by 2009 assuming 1000-1500 applications will be made each year (on average one officer will handle 3-5 cases each depending on the complexity of the applications). Additionally, while staff strength is important in ensuring speed of response, staff skills and knowledge are extremely critical to ensure quality of the response provided. Thus it is important halal certification officers be well trained in both Shariah and industry/scientific matters. We propose that HDC undertake this important role of providing training and other education programmes required to increase the skills of halal officers. This can be done, amongst other things, by developing a more structured cooperation with higher education institutes locally (such as UPM and IIU) or internationally (such as Al-Azhar) whereby officers can spend a few months at these institutes to update their knowledge. At the same time, via public-private partnership, officers can be sent to a company/factory for a set period of time, to specifically learn about manufacturing operations, ingredients and so on.
IV.5 International Certification

As part of Malaysia agenda to develop itself as the global reference centre for halal knowledge, it is inevitable that Malaysia may be requested to offer certification services to companies internationally. However, at time of writing, there is limited data to substantiate that broad based demand and support for halal certification exists outside Malaysia. More specifically, the following issues are present:

• Lack of evidence to support that Malaysia certification is demanded in other Muslim markets. We believe that consumers are generally nationalistic and would prefer a certification provided by a local CB. At the same time, not many consumers are able to differentiate the differences between different halal certification i.e. all halal is the same

• Halal as a value proposition is still very weak except for food products and this is also mainly for meat or meat-based products. It is argued that halal does not strongly impact purchasing decisions – functionality, quality and prices are more important determinants of the decision to purchase

• Malaysia is unique in having high halal awareness. Malaysia consumers are willing to pay up to 5% more for halal products such as personal care, but it cannot be ascertained that consumers in other countries are similar

HDC has currently been tasked to undertake the role of issuing halal certification internationally.
While we do not propose that this idea be abandoned because of the issues outlined above, we believe that it must be strategically implemented. There are a few factors involving scope, structure, and funding that must considered moving forward. In more details we believe that:

• Scope: It must be decided, especially in the short term, whether Malaysia will offer halal certification to
  o All international companies, or
  o Only Malaysian companies with international presence, or
  o International companies in sectors that Malaysia are not promoting (for e.g. not for those in specialty processed food, specialty ingredients or natural/organic cosmetics or personal care)
o Only international companies with presence in Malaysia
We believe that in the short term, Malaysia should not offer halal certification to all international companies. More importantly, it should not be provided for industries that Malaysia is promoting for FDI. If the argument that our halal certification holds a premium internationally is true, than rightfully this should be used as a competitive advantage for Malaysia to promote our own companies or companies that are willing to commit to having Malaysia as their manufacturing base and able to directly contribute to our economic development agenda, at least in the short term. Thus, initial focus for international certification can be only for

(i) Malaysian companies operating abroad and
(ii) MNCs operating in Malaysia with manufacturing presence abroad. Gradually this constraint can be lifted as required

• Structure: In order to implement international certification more effectively and optimize cost, we propose that HDC develop partnership/joint venture with qualified foreign CBs to assist in certification of companies in their country. Currently JAKIM recognises 44 CBs from 22 countries which can potentially work together with HDC. However, as currently there are no clear criteria used to assess the CBs, we propose that HDC first develop a strict set of criteria that can be used to assess the CBs. They can be appointed as auditors and consultants but not to issue certification. The final issuance of certification must be done by HDC

• Funding. No Government incentives to either service provider or applicants will be given out as the spillover effects are limited. Service provider must be self-sustaining and able to commercially provide the services.

V. Enforcement and monitoring of halal requirements
V.1 Overview

Certification for halal is carried out via a compliance inspection regime which entails site inspections of plants or premises for which halal certification is applied for. The inspections are normally carried out upon the applicant fulfilling all documentary requirements and once payment has been received. At least two inspecting officers (one Islamic affairs officer and one food technology officer, or technical staff for abattoirs) will be assigned to conduct site inspection. Once inspection has been completed and found satisfactory, the premise will be approved and subject to further monitoring for two years (in the case of abattoirs, approvals are granted for a one-year period only).

Surveillance activities are then undertaken to ensure compliance. These activities entail visits by certification agency officials accompanied by personnel from other related bodies such as the Ministry of Agriculture, MDTCA, Ministry of Science, Technology and Innovations (MOSTI), and the local government. The composition of
the team would depend on the type of facility being visited and the product type certified. Frequency of surveillance visits ranges from once a month to once a year depending on the states. Sarawak and Perlis report monthly visits while Negeri Sembilan and Penang only conduct inspections once a year. JAKIM has an average surveillance interval of every six months.

V.2 Challenges

A few key challenges are faced by the authority in enforcing halal requirements and monitoring compliance of certified companies. They are:

- Lack of legal sanction. At present, JAKIM only has the power to conduct inspection but need to report a manufacturer’s non-compliance to MDTCA as it does not have powers to prosecute

- Monitoring is sometimes ad-hoc, lack coordination and not properly recorded. Lack of systematic monitoring has resulted in differences between standards established and what is practiced by companies e.g. use of warm water bath (to take our feathers from the birds) in poultry industry

- Lack of capacity to undertake more frequent visits.

Currently there is limited number of officers in charge of enforcement (surveillance and complaints). Some agencies (especially at JAIN level) do not even have a dedicated monitoring team, while those that do have between 2-3 officers

V.3 Strategies moving forward

We propose the following recommendation moving forward:

- Provide legal sanction for halal enforcement and monitoring. Among the recommendations raised by certification agencies during the survey/interview exercise conducted by Merdeka Centre, include the need to address the lack of authority to enforce the terms of certification. There is a need for a Halal Act to be developed to give relevant authority(s) powers to enforce the rules under which the certification were issued

- Develop structured and standardised monitoring. We propose that a more structured and standardised monitoring/surveillance process be developed to ensure a more systematic monitoring procedure is put in place. While currently surveillance intervals differ between states, we propose that moving forward these intervals are differentiated based on companies’ profile. For examples, for new and problematic companies, monitoring regime can be made more rigorous with potentials for monthly inspections to be conducted. While companies that have been given many halal certifications and have proven to be compliant, monitoring can be done every 6 months or 1 year. These procedures are to be unanimously adopted and practiced at
both national and state levels to ensure greater clarity in the process and enable better coordination of resources. We also propose that findings made from inspections conducted are recorded electronically to enable easy access and better tracking of all the companies involved.

- Increase capacity of the inspection team. We propose that the monitoring activities at both national and state levels be strengthened via the development of dedicated monitoring teams and be expanded via the recruitment of more competent officers with required skill sets. Skills of existing officers must also be frequently updated via a structured training programme.

VI. Education programmes to promote halal awareness and strengthen halal knowledge

VI.1 Overview

It is argued that while halal is fast becoming a requirement for many Muslims globally, there is still a lack of understanding in terms what exactly does halal mean and what are the requirements that must be fulfilled for a product to be halal. Many consumers tend to define halal simply as a religious requirement i.e. for Muslims to consume, eat or use a product or service, it must first be acknowledged as halal. They fail to associate halal, which means permissible, to toyyiban which means wholesome, in the sense that the product, especially food, must be safe, healthy, nutritious and hygienic.

One of the reasons why there are still limited applications for halal certification is that producers do not exactly understand the benefits of halal. In the case that they do, they do not understand the requirements to fulfill halal.

Additionally, as halal is still largely viewed as a religious matter, halal knowledge is very much constrained to Shariah rather than scientific understanding. As such, it is important that halal education programmes be developed. This is not just to increase understanding of halal requirements and get more producers be certified as halal, but more fundamentally to educate both producers and consumers the importance of halal in terms of it being a requirement for health, hygiene, and safety. At the same time, scientific knowledge to support halal requirements must be simultaneously developed via effective R&D programmes in composition analysis, traceability study, analytical techniques, product research (that includes, inter alia, development of alternatives for non-halal ingredients), scientific proof of halal requirements and such. In terms of educating the industry and public (i.e. producers and consumers), HDC has come up with HDC Halal Training Programmes which include three core courses: Halal Awareness Programme (HAP); Halal Industry Programme (HIP) and Halal Professional Programme (HPP).

HAP is structured as a general knowledge course for both producers and consumers covering topics on ‘understanding halal’, ‘understanding halal industry’ and ‘MS 1500:2004’. HIP is targeted mainly for halal food producers covering topics such as ‘best halal practices in food industry’, ‘effective halal operations in food industry’ and ‘halal internal auditing workshop’.
HPP is specific for halal professionals’ i.e. consultants, and trainers. It covers topics such as ‘professional halal trainers’ workshop’, ‘professional halal auditors’ workshop’ and ‘refresher course for halal consultants’.

On the academic/research front, UPM is offering Masters and PhD programmes on halal food analysis and halal food management. HPRI, more specifically, offers PhD programmes in areas of research that include new techniques for halal products authentication, as well as innovations on alternative halal products. It also provides analytical services for halal authentication and verification of food and non-food products, and halal training and consultancy to food industries.

However, as mentioned earlier, these services are still very limited and most activities that take place in HPRI are mainly academic.

VI.2 Challenges

While Malaysia has made a head start in offering education programmes specific to halal matters, we believe that there are still a few challenges that need to be addressed:

• Limited courses available. In order for Malaysia to effectively develop itself as the global reference centre for halal knowledge, it is important that Malaysia is seen to be at the forefront of halal education programmes. Currently the courses offered are still limited

• Ad-hoc offerings of courses. Various institutions are offering piecemeal programmes on halal with no coordination provided

VI.3 Strategies moving forward

• Offer more relevant halal courses. We propose that more halal courses are developed and offered to both students and researches internationally. UPM and IIUM can be tasked to lead in developing academic courses in halal – potentially even at a first degree level.

These courses, once developed, can also be offered by other established local universities such as Universiti Sains Islam Malaysia (USIM) with some specialised areas added, as and when required. Additionally, while HDC can continue to offer its halal industry intensive programmes, potentially these can be further strengthened to ensure that topics covered are directly relevant to the requirements of the industry and the consumers both locally and internationally. At the same time, institutions such as IKIM can be further leveraged to assist in the development of courses (potentially short courses) that more specifically cover the Shariah aspects of halal focusing on changing trends and understanding of halal in the light of emerging issues and challenges

• HDC to coordinate all education programmes. We propose that HDC take the role of coordinating all the halal courses offered in Malaysia by forming close partnerships with all the institutions involved. HDC can act as a one-stop-centre that cohesively
promotes all the education programmes available and to be able to assist/advice interested parties as to what courses are available, where to do them and how best to do so.

CONCLUSIONS

The Nutraceutical industry specifically is a growing industry worldwide and Malaysia being endowed with a rich tropical biodiversity and bio resources have huge opportunities and potential to offer the world halal nutraceutical products. Apart from conforming to current regulations related to quality, safety and efficacy, the halalan toyyiban factor is the niche that differentiates Malaysian nutraceuticals from the rest of the world. Problems related to the various issues and challenges in realizing Malaysia as a centre for halal nutraceutical production and distribution, halal service providers, halal standards, and halal R & D have to be solved. In creating an absolute halal integrity hub six elements needs to be addressed namely formulation of fatwa, R & D in formulating fatwa, Halal guidelines and protocols, halal certification, enforcement and monitoring of standards and educating producers and consumers.

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ABSTRACT

High managers’ turnover within the hotel industry has become one of the major concerns to the researchers and practitioners. In line with this view, this paper investigates the relationship between organizational justice (OJ) and turnover intentions (TI) among hotel managers. The sample comprised of 254 lower and middle-level managers from 26 medium-sized hotels (3 & 4-star) in Klang Valley area. Organizational Justice was measured based on the three-dimensional measures of distributive justice (DJ), procedural justice (PJ), and interactional justice (IJ). Turnover intentions were measured using a five-item scale. It was hypothesized that distributive justice, procedural justice, and interactional justice perceptions were negatively related to turnover intentions. Results from the regression analyses revealed that only distributive justice and procedural justice have made a significant negative effect on managers’ turnover intentions. Interactional justice however, did not support the proposed relationship. Research findings, limitations, and suggestions for future research are discussed.

Keywords: Organizational Justice, Distributive Justice, Procedural Justice, Interactional Justice, and Turnover Intentions

INTRODUCTION

The increasing awareness on employees’ turnover in the hotel industry has become a global phenomenon across the western world. Empirical studies consistently showed
that excessive employee turnover rate is acknowledged to be the most problematic issues and particularly detrimental to the global hotel industry, which ranged about 60 per cent annually (Birdir, 2002; Carbery, Garavan, O’brien, & McDonnell, 2003; Ghiselli, LaLopa, & Bai, 2001; Hinkin & Tracy, 2000). In similar fashion, despite of the tremendous development of hotels in Malaysia, the problems of employee turnover is prevailing and remains high in the industry (Hemdi, 2006; Hemdi & Nasurdirn, 2003; Zahari, 2004). According to Malaysian Association of Hotels (2000), the average employee turnover rate was reported to be high as 65.7 per cent annually for the respective year of 1998/1999. This is further exacerbated as agreed by many hotel human resource managers that turnover generally occurs among fresh hospitality graduates, managerial employees, as well as the operational employees (Malaysian Association of Hotels, 1997). The traditional constraints such as long working hours, antisocial working hours, low pay, unstable, seasonal employment, low job status also make employment within hotel industry appears unattractive to many (Malaysian Association of Hotels, 2000). In particular, it has been discovered that managers’ turnover rate are significantly higher in the hotel industry compared to other service sector industries (Carbery et al., 2003; Ghiselli et al., 2001; Ingram & Brown, 2000). Studies reported that hotel managers’ turnover rates in most countries were noted to be high: 129 per cent in Ireland (Carbery et al., 2003), 86 per cent in Hong Kong (Lam, Zhang, & Baum, 2001), 57.6 per cent in Japan, Korea, and Singapore (Khatri et al., 2001). Indeed, the issues of managers’ turnover intentions are prevalent and also expected to exist within the Malaysian hotel industry.

Most recent studies on the predictors of turnover intentions within hotel industry were conducted in the western world (Carbery et al., 2003; Hinkin & Tracy, 2000; Lam et al., 2001; Pizam & Thornburg, 2000), and the findings may not be applicable to the local organizations due to vast economics, social, and cultural environments differences (Cotton & Tuttle, 1986). Further, there still be limited of such studies have been conducted in the Malaysian hotel industry which focused on the operational and the managerial employees respectively (Hemdi, 2006; Hemdi & Nasurdirn, 2003). Currently, to the knowledge of these researchers, no efforts have been made to understand how managers’ perceptions of fairness on the characteristics of the organization may influence their behavioral intentions in the Malaysian hotel industry. Previous local studies on turnover intentions were conducted merely among operational hotel employees’ (Hemdi, 2006; Khalid, 2006), engineers (Nathan, 1998), armed forces (Toong, 1999), and government doctors (Samad, 2006). Most organizational justice studies were done in western countries and surprisingly, little research has been undertaken to explain the relationships between organizational justice and turnover intentions (Dailey & Kirk, 1992; Lee, 2000; Price, 2001). Correspondingly, limited justice studies have been done in the Malaysian context and so far, only focus among lecturers in the higher education institutions (Yusof & Shamsuri, 2006) and manufacturing employees (Samad, 2006). Yusof & Shamsuri (2006) further argued that, organizational justice can affect not only the organization’s long-term viability but also to determine the nation’s economic well-being and its competitiveness globally. Thus, it is noteworthy to mention that the perceptions of
organizational justice can give a huge impact on the employee-organization relationship. Hence, the understanding of the effects and relationship of organizational justice on managers’ behavioral reactions (turnover intentions) are extremely relevant.

Having briefly introduced the problem, the focus of this paper is to investigate the relationship between organizational justice and turnover intentions among lower and middle-level hotel managers. Although a great deal of research has addressed the issues of turnover intentions, there still remain gaps in the examination of the predictors of turnover intentions among managerial employees as most literature highlighted a bias towards studying the non-managerial populations (Carbery et al., 2003). It is worth noting that very little research has investigated the managers’ perceptions of fairness towards the organization and its influence on their behavioral intentions in the Malaysian hotel industry. Consistent with this notion, a better understanding of the factors which lead to hotel managers’ intentions to quit becomes increasingly relevant. In addition, to what extent does the hotel managers’ perceptions of organizational fairness will influence their behavioral intentions (turnover intentions) to leave the organization has not yet been explored. This unexplored independent variable of organizational justice focusing on the influence of distributive justice (DJ), procedural justice (PJ), and interactional justice (IJ) in turnover intentions studies among hotel managers within the Malaysian context warrant a further investigation.

LITERATURE REVIEW

Turnover Intentions

Turnover intentions are defined in several ways due to diverse definitions but share a common term in the scholarly literature. It refers to an individual’s perceived probability of staying or leaving an employing organization (Cotton and Tuttle, 1986). Hellman (1997) defined turnover intentions as the behavioral intentions illuminating an individual’s intention to leave or stay and considered as the primary antecedent to actual turnover behavior. Meanwhile, Hom and Griffeth (1995) referred turnover intentions as a conscious and deliberate willfulness of an individual towards voluntary permanent withdrawal from the organization. Empirical studies on turnover have shown that turnover intentions are the best immediate predictor of actual turnover behavior (Griffeth, Hom & Geatner, 2000; Price, 2001; Hemdi, 2006; Samad, 2006). This relationship is further supported by the attitude-behavior theory, which holds that an individual’s intention to perform a specific behavior is the immediate determinant of the actual behavior (Ajzen & Fishbein, 1980). Indeed, there is a strong and significant positive relationship between turnover intentions and the actual turnover (Lambert, Hogan, & Barton, 2001; Mor Barak, Nissly, & Levin, 2001; Price; 2001; Samad, 2006). In the review of antecedents to turnover, Mor Barak et al. (2001) further argued that many studies have used turnover intentions rather than actual turnover as the work outcomes due to: 1) Employees typically make conscious decision before actually quitting their jobs and 2) It is more practical to inquire
employees of their intention to quit in a cross sectional study rather than actually tracking them down via longitudinal study to see if they have left their organization. For these reasons and consistent with previous researchers (Lambert et al., 2001; Mor Barak et al., 2001; Hemdi, 2006; Samad, 2006), turnover intentions is the criterion variable in this study since it has been recommended as a proxy in measuring actual turnover (Price, 2001). Thus, following Hom & Griffeth (1995) definition, turnover intentions is clearly defined as the hotel managers’ behavioral intentions to leave or quit from their particular organization.

Organizational Justice and Turnover Intentions

Research on organizational justice has grown up in the psychological literature over the past 40 years. Organizational justice refers to the perceptions of fairness and evaluations of treatment received in the organization (Croppanzano & Greenberg, 1997). On other perspective, Moorman (1991) viewed organizational justice is concerned with the ways in which employees determine whether they have been treated fairly in their jobs and the ways in which those determinants influence other work-related outcomes. Consistent with Niehoff and Moorman (1993), there are three-dimensional views of the organizational justice concept that evolved over time namely: (1) distributive justice (fairness of the outcomes that employee receives); (2) procedural justice (fairness of the procedures used to determine those outcome allocation decisions) and (3) interactional justice (fairness of communications or interpersonal treatment that accompanies organization formal procedures). These are further elucidated as follows:

Distributive justice refers to the employees’ perception of fairness in the workplace by comparing their inputs/outcomes received from the organization (Niehoff & Moorman, 1993). As noted by Greenberg (2001), distributive justice highlights on the employees’ response towards the fairness of the treatment or distribution of rewards (pay, promotions, and etc.) received from the organization. In general, distributive justice is more important in predicting personal-level outcomes such as pay satisfaction (Linda & Ping, 1996; Sweeney & McFarlin, 1993) and job satisfaction (Samad, 2006; Yusof & Shamsuri, 2006). Distributive justice was also found to have a significant negative influence on turnover intentions (Aryee & Chay, 2001; Dailey & Kirk, 1992; Lee, 2000; Loi, Ngo, & Foley, 2006). Procedural justice reflects the extent to which employee perceived that the outcome allocation decisions have been fairly made in relation to the organization’s formal procedures and treatment given in enacting those procedures (Moorman, 1991). These procedures not only offer employee’s control over the outcomes they received but also to ensure those outcomes obtained to be fair. Past research indicated that procedural justice may have strong effects on organizational outcomes such as affective commitment (Khatri et al., 2001; Samad, 2006; Tremblay, Sire, & Balkin, 2000; Yusof & Shamsuri, 2006). Additionally, studies found that procedural justice are significantly related to turnover intentions (Khatri et al., 2001; Dailey & Kirk, 1992). Interactional justice, on the other hand, refers to the fairness of the employees’ perceive when they have been communicated in a sensitive and respectful manner and are treated with courtesy and dignity in their
organizational practices (Cohen-Charash & Spector, 2001). Interactional justice has been commonly associated with personal-level outcomes such as supervisory relationships (Cropanzano, Prehar, & Chen, 2002), organizational citizenship behavior (Niehoff & Moorman, 1993), job satisfaction (Masterson, Lewis, Goldman, & Taylor, 2000), and job performance (Cropanzano et al., 2002). Recent organizational justice study by Hubbell and Chory-Assad (2005) confirmed that interactional justice have a significant and negative relationship with turnover intentions.

Empirical evidence revealed that organizational justice have a significant influence on employees’ work attitudes and behaviors (Colquitt, Conlon, Wesson, Porter, & Ng., 2001; Kernan & Hanges, 2002; Shaw, Wild, & Colquitt, 2003). In particular, studies constantly showed that organizational justice negatively influence turnover intentions (Aryee & Chay, 2001; Khatri et al., 2001; Loi et al., 2006). In view of the fact that most prior justice research were done in western countries, to date, limited local studies have been undertaken in understanding the influence of different aspect of organizational fairness on employees’ work-related outcomes (Samad, 2006; Yusof & Shamsuri, 2006). This is further exacerbated as least attention is given pertaining to the hotel managers’ perceptions of organizational justice on turnover intentions within the Malaysian context. Given such concerns regarding fairness in the hotel organization, this study focuses on the predictive role of organizational justice (distributive justice, procedural justice, and interactional justice) on turnover intentions. Following Niehoff & Moorman (1993) definition, organizational justice in this study is clearly defined as the hotel managers’ perceptions of fairness of treatment received from their organization. Therefore, based on these empirical considerations and consistent with the discussions made on the aforementioned related literature, it can be hypothesized that:

**H1: There is a negative relationship between perceptions of organizational justice and turnover intentions.**

H1a: There is a negative relationship between perceptions of distributive justice and turnover intentions.

H1b: There is a negative relationship between perceptions of procedural justice and turnover intentions.

H1c: There is a negative relationship between perceptions of interactional justice and turnover intentions.

**THEORETICAL FRAMEWORK**

**Conceptualization of Study Variables**
Having identified the variables in the reviews of the relevant literature, the criterion variable of interest in this study is “turnover intentions” and the predictor variable is the “organizational justice dimensions” (DJ, PJ, and IJ). The theoretical framework is illustrated in Figure 1.

FIGURE 1: THE THEORETICAL FRAMEWORK OF HOTEL MANAGERS’ TURNOVER INTENTIONS

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
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<tbody>
<tr>
<td><strong>Organizational Justice</strong></td>
<td>Turnover Intentions</td>
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<tr>
<td>Distributive Justice (DJ)</td>
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<td>Procedural Justice (PJ)</td>
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</tr>
<tr>
<td>Interactional Justice (IJ)</td>
<td></td>
</tr>
</tbody>
</table>

METHODOLOGY

Samples

Participants in this study consisted of lower (supervisor) and middle-level hotel managers (line/outlet managers). A total of 600 questionnaires (mini booklet form) were initially mailed to the respective human resource managers over 26 medium-sized hotels (3&4-star) located in Klang Valley. Specifically, a mail survey questionnaire was employed. In view of the fact that the survey is not under researcher’s supervision, cooperation with the human resource managers is vital for internal access and direct distribution of questionnaires to the managers. The human resource managers were told to randomly distribute the questionnaires to the managers associated with two major operating departments; room department (front office and housekeeping) and food and beverage department (production and service). Respondents were given two weeks for completion. Data entry began as soon as the completed questionnaires were returned directly to the researcher via mail using the self-addressed envelopes provided. In total, 281 questionnaires (47%) were returned. However, only 254 usable questionnaires (42%) were coded and analyzed.
Measurements

The predictor variable of organizational justice (OJ) was measured using a 20-item instrument (Niehoff and Moorman, 1993). The justice scale consists of three dimensions measuring perceptions of distributive justice (DJ), procedural justice (PJ), and interactional justice (IJ) using 5, 6, and 9-items respectively. The criterion variable, turnover intentions (TI) was measured via 5-item scale adapted from Hom and Griffeth (1995). Responses to all items were made on a 7-point likert scale format ranging from (1) “Strongly Disagree” to (7) “Strongly Agree”.

Method of Analyses

Prior to hypothesis testing, confirmatory factor analysis (CFA) was initially undertaken for the study variables using covariance matrix as input to test (confirm) the prespecified relationship and to evaluate the distinctiveness of the measures used in this study. The research hypotheses were subsequently tested using hierarchical multiple regression analysis. The five main demographic variables such as age, gender, marital status, education level, and organizational tenure were found in previous researches to affect turnover intentions (Hemdi, 2006; Lambert et al., 2001; Price, 2001). Given the potential impact of these demographic factors on the dependent variable, these personal variables were statistically controlled in all regression analyses conducted.

RESULTS

Respondent’s Profile

The sample profile for this study is shown in Table 1.

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Categories</th>
<th>Frequencies</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>175</td>
<td>68.9</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>79</td>
<td>31.1</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Single</td>
<td>108</td>
<td>42.5</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>132</td>
<td>52.0</td>
</tr>
<tr>
<td></td>
<td>Widower/Widow</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Divorce</td>
<td>13</td>
<td>5.1</td>
</tr>
</tbody>
</table>
From Table 1, it can be observed that the mean age of the respondents was 32.3 years (SD = 6.38), where the age ranged between 20 to 51 years. Regarding gender, a total of 175 (68.9%) respondents were males while 79 (31.1%) were females. Majority of the respondents were married (52.0%) while others were single (42.5%), widower/widow (0.4%), and divorce (5.1%). In terms of education, most respondents had their educational qualification up to Diploma level constituting a total of 129 (50.8%) respondents. The remaining respondents had SPM/STPM (21.3%), Certificate (11.4%), or a Bachelor Degree (16.5%). As for organizational tenure, 4 (1.6%) respondents had less than 6 months working experiences in their current hotel, 17 (6.7%) respondents signified they have work between 6 months to 1 year, 84 (33.1%) have worked between 2 to 3 years, while 59 (23.2%) respondents have worked between 4 to 5 years, and the remaining 90 (35.4%) respondents signified they have work in their current hotel for more than 5 years.

**Confirmatory Factor Analysis of the Study Variables**

Prior to hypotheses testing, the data were initially submitted for assessment of confirmatory factor analysis (CFA), using a covariance matrix as input. The main purpose of conducting CFA using LISREL 8.80 is to test (confirm) a prespecified relationship and to evaluate the distinctiveness of the measures used in this study (Jöreskog & Sörbom, 2006). The internal consistency of the factors was subsequently examined using the Cronbach’s alpha values. For the assessment of the measurement model using CFA, a total of 25-items were identified among the study variables. In particular, the 20-items of organizational justice construct have led to the identification of three dimensions: 5-items reflecting organizational justice, 6-items measuring procedural justice, and 9-items relating interactional justice (Niehoff & Moorman, 1993). Meanwhile, the 5-items measuring turnover intentions were identified (Hom & Griffeth, 1995).
Table 2 depicts the iteration process that took place in getting the perfect-fit model of organizational justice and turnover intentions construct. It can be seen that, the initial model of distributive justice had a perfect fit and no additional modification was required (GFI = 1.00, RMSEA = 0.000). Although the initial model of procedural justice indicated an acceptable GFI, conversely, the RMSEA was high indicating possibility of improved fit for the measurement model (GFI = .86, RMSEA = 0.225). Jöreskog and Sörbom (2006) suggested that only one item can be altered at a time to avoid excessive model modification and this iterative process continued until the model parameters and key fit indices met the recommended criteria. In line with this view, the model tested in iteration 1 was done by dropping item PJ1 since the \( R^2 \) value was the lowest (\( R^2 = 0.19 \)) and the result showed that the RMSEA value did not improved. Item PJ2 was subsequently dropped in iteration 2 due to low \( R^2 \) value (\( R^2 = 0.38 \)) and the model showed a significant improvement with a perfect model fit (GFI = 1.00, RMSEA = 0.000). The initial model of interactional justice had the acceptable GFI of 0.74, but a relatively high RMSEA of 0.235. The model resulting from iteration 1 showed a perfect fit (GFI = 0.98, RMSEA = 0.010) when item IJ4 was dropped due to lowest \( R^2 \) value (\( R^2 = 0.30 \)). On turnover intentions construct, the initial model had a poor fit with an acceptable GFI of 0.94 and a considerably high RMSEA of 0.159. Item TI1 was dropped in iteration 1 due to lowest \( R^2 \) value (\( R^2 = 0.33 \)) and the result finally showed a perfect model fit (GFI = 1.00, RMSEA = 0.000).

### TABLE 2: DESCRIPTION OF MODIFICATION PROCESS OF UNIDIMENSIONALITY AND CONVERGENT VALIDITY OF THE ORGANIZATIONAL JUSTICE AND TURNOVER INTENTIONS FACTORS

<table>
<thead>
<tr>
<th>Items</th>
<th>GFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial Model of Distributive Justice</strong></td>
<td>DJ1, DJ2, DJ3, DJ4, DJ5</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Initial Model of Procedural Justice</strong></td>
<td>PJ1, PJ2, PJ3, PJ4, PJ5, PJ6</td>
<td>0.86</td>
</tr>
<tr>
<td></td>
<td>PJ2, PJ3, PJ4, PJ5, PJ6</td>
<td>0.90</td>
</tr>
<tr>
<td><strong>Iteration 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Iteration 2</strong></td>
<td>PJ3, PJ4, PJ5, PJ6</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Initial Model of Interactional Justice</strong></td>
<td>IJ1, IJ2, IJ3, IJ4, IJ5, IJ6, IJ7, IJ8, IJ9</td>
<td>0.74</td>
</tr>
<tr>
<td></td>
<td>IJ1, IJ2, IJ3, IJ5, IJ6, IJ7, IJ8, IJ9</td>
<td>0.98</td>
</tr>
<tr>
<td><strong>Iteration 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Initial Model of Turnover Intentions</strong></td>
<td>TI1, TI2, TI3, TI4, TI5</td>
<td>0.94</td>
</tr>
<tr>
<td></td>
<td>TI2, TI3, TI4, TI5</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Iteration 1</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3 depicts the final constructs used in organizational justice and turnover intentions variables. The final constructs instrument resulted in a total of 21-items. This comprised of 17-items measuring respondents' perceptions of organizational justice and followed by 4-items measuring turnover intentions. Specifically, 3-items (PJ1, PJ2, and IJ4) were eliminated from the organizational justice constructs whereas only 1-item (TI1) was eliminated from turnover intentions construct. As previously mentioned, these items were eliminated from further analyses due to lowest R² value. Anchored in Hair et al. (2006) rule of thumb, a construct should be reflected by a minimum of three items. Consistent with this notion, all construct contain an adequate number of items and none were excluded in this study. It is evident that no modification was required to restating the initial hypotheses. Therefore, the three dimensional measures of organizational justice, the unidimensional measure of turnover intentions were included in the hypotheses testing.

**TABLE 3: ORGANIZATIONAL JUSTICE-TURNOVER INTENTIONS**

<table>
<thead>
<tr>
<th>Abbreviated Label</th>
<th>Actual Scale Item</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organizational Justice Items</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Distributive Justice</strong></td>
<td></td>
</tr>
<tr>
<td>DJ1</td>
<td></td>
</tr>
<tr>
<td>DJ2</td>
<td>Fair work schedule</td>
</tr>
<tr>
<td>DJ3</td>
<td>Fair pay level</td>
</tr>
<tr>
<td>DJ4</td>
<td>Fair workload</td>
</tr>
<tr>
<td>DJ5</td>
<td>Fair rewards</td>
</tr>
<tr>
<td></td>
<td>Fair job responsibilities</td>
</tr>
<tr>
<td><strong>Procedural Justice</strong></td>
<td></td>
</tr>
<tr>
<td>PJ3</td>
<td></td>
</tr>
<tr>
<td>PJ4</td>
<td>Accurate and complete information</td>
</tr>
<tr>
<td>PJ5</td>
<td>Clarifies decisions and additional information</td>
</tr>
<tr>
<td>PJ6</td>
<td>Consistent job decisions</td>
</tr>
<tr>
<td><strong>Interactional Justice</strong></td>
<td>Challenge or appeal job decisions</td>
</tr>
<tr>
<td>IJ1</td>
<td></td>
</tr>
<tr>
<td>IJ2</td>
<td></td>
</tr>
<tr>
<td>IJ3</td>
<td>Treats with kindness and consideration</td>
</tr>
<tr>
<td>IJ5</td>
<td>Sensitive to personal needs</td>
</tr>
<tr>
<td>IJ6</td>
<td>Concern employee rights</td>
</tr>
<tr>
<td>IJ7</td>
<td>Discusses the implications of job decisions</td>
</tr>
<tr>
<td>IJ8</td>
<td></td>
</tr>
<tr>
<td>IJ9</td>
<td>Adequate justification for job decisions</td>
</tr>
<tr>
<td></td>
<td>Sense explanations on job decisions</td>
</tr>
<tr>
<td></td>
<td>Clear explanations on job decisions</td>
</tr>
<tr>
<td></td>
<td>Treats with respect and dignity</td>
</tr>
<tr>
<td><strong>Turnover Intentions Items</strong></td>
<td></td>
</tr>
</tbody>
</table>
Reliability and Validity Analysis

After the evaluation of the model, the measurements of each construct were assessed for its reliability and validity as these factors can influence the quality of the obtained data. The reliability coefficient for each measure was initially examined by computing the Cronbach’s alpha values. The items included in the test are based on the results of the earlier confirmatory factor analysis conducted. As shown in Table 4 below, The initial reliability estimates for the organizational justice dimensions of distributive justice, procedural justice, and interactional justice were .89, .83, and .93 respectively. The dependent variable of turnover intentions had an excellent reliability coefficient of .91. Generalizing from the results and concur with Hinton et al.’s (2004) minimum alpha score range of .50 to .70, the Cronbach’s alpha values for the internal consistency of all study variables were considered high and acceptable.

Once the construct reliability has been established, the instruments validity was next assessed. In testing validity, the construct validity is highlighted in this study which deals with the accuracy of the measurement. According to SteenKamp and Van Trijp (1991), the criteria for achieving construct validity is by checking the unidimensionality of the measure which refers to the existence of a single construct underlying a set of measures. For the purpose of this study, unidimensionality analysis was done by identifying the measurement model for each construct and confirmatory factor analysis (CFA) is run for all constructs. A comparative fit index (CFI) value above .90 for the model implies that there is a strong evidence for unidimensionality (Hair et al., 2006). Consequently, all scales for the study variables had a CFI value exceeding .90.

Convergent validity on the other hand, defined as the extent to which a new measure of a specific construct “converge” with other similar measures (Zikmund, 2003). Specifically, when there is a high correlation between a measure and other measures that are believed to measure the same construct, convergent validity is obtained. Each item in a scale can also be treated as a different approach to measure the same construct. In this study, convergent validity can be assessed using the normed fit index (NFI) in CFA. As further recommended by Hair et al. (2006), the NFI value above .90 signifies a strong convergent validity. Indeed, all scales had an NFI value ranging from .90 to 1.00. Therefore, this implies for a reasonably strong indication of convergent validity. The CFI and NFI value for all scales is summarized in Table 4.
TABLE 4: UNIDIMENSIONALITY AND RELIABILITY INDICES FOR THE STUDY VARIABLES

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of Items</th>
<th>Number of Items Deleted</th>
<th>Cronbach’s Alpha (α) (Before)</th>
<th>Cronbach’s Alpha (α) (After)</th>
<th>Comparative Fit Index (CFI)</th>
<th>Normed Fit Index (NFI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organizational Justice</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributive Justice</td>
<td>5</td>
<td></td>
<td>.89</td>
<td>.89</td>
<td>1.00</td>
<td>0.96</td>
</tr>
<tr>
<td>Procedural Justice</td>
<td>6</td>
<td>2</td>
<td>.88</td>
<td>.83</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Interactional Justice</td>
<td>9</td>
<td>1</td>
<td>.95</td>
<td>.93</td>
<td>1.00</td>
<td>0.98</td>
</tr>
<tr>
<td><strong>Turnover Intentions</strong></td>
<td>5</td>
<td>1</td>
<td>.92</td>
<td>.91</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note. \( N = 254 \)

Descriptive Statistics

The descriptive statistics and the correlation among the study variables (predictor and criterion variable) are shown in Table 5.

TABLE 5: MEAN SCORES, STANDARD DEVIATIONS, AND PEARSON CORRELATIONS MATRIX FOR STUDY VARIABLES

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean (M)</th>
<th>Standard Deviation (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Distributive</td>
<td>5.23</td>
<td>1.05</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Justice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Procedural</td>
<td>5.39</td>
<td>.89</td>
<td>.68**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Justice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Interactional</td>
<td>5.54</td>
<td>.79</td>
<td>.72**</td>
<td>.83**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Justice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Turnover</td>
<td>2.85</td>
<td>1.64</td>
<td>-.58**</td>
<td>-.46**</td>
<td>-.43**</td>
<td>-</td>
</tr>
<tr>
<td>Intentions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. \( N = 254, \ *p < 0.05; \ **p < 0.01, \ All items used a 7-point Likert scale with (1=strongly disagree to 7=strongly agree) \)
As portrayed in Table 5, the respondents’ perceptions of organizational justice were found to be relatively high; distributive justice ($M=5.23, SD=1.05$), procedural justice ($M=5.39, SD=.89$), and interactional justice ($M=5.54, SD=.79$). These mean scores were obtained by averaging the scores for the 5, 6, and 9 items identified under the distributive justice, procedural justice, and interactional justice dimensions respectively resulting from the confirmatory factor analysis. The level of turnover intentions experienced by the respondents were relatively low ($M=2.85, SD=1.64$). This mean value was gauged by averaging the scores for the 4 items associated with one’s intention to leave.

As depicted from above Table (Table 5), all study variables were significantly intercorrelated. Correlations among organizational justice dimensions were significantly large, ranging from $r = .68\ (p < 0.01) \text{ to } r = .83\ (p < 0.01)$. Accordingly, the correlations between distributive justice and procedural justice ($r = .68, p < 0.01$), interactional justice ($r = .72, p < 0.01$), and between procedural justice and interactional justice ($r = .83, p < 0.01$) were considered large. The correlations between organizational justice dimensions and turnover intentions were negative and significant ranging from $r = -.43\ (p < 0.01) \text{ to } r = -.58, (p < 0.01)$. Distributive justice had a much stronger correlation with turnover intentions compared to procedural justice and interactional justice. From the intercorrelation results, it also can be said that no serious multicollinearity exists among the study variables as the strength of the correlations was all below .90 (Hair et al., 2006).

**Hypothesis Testing**

To test the formulated hypothesis, a hierarchical multiple regression analysis was undertaken. Specifically, a two-step hierarchical regression was conducted to test the relationship between organizational justice and turnover intentions. From the hypothesis, three-sub hypotheses were developed comprised of the three dimensional measures of organizational justice (DJ, PJ, and IJ). The criterion variable relates to turnover intentions. The five main demographic variables (age, gender, marital status, education level, and organizational tenure) were statistically controlled and entered into the first step of the regression equation. For the second step, all three model variables concerning dimensions of organizational justice were entered. Table 7 summarized the regression results.

**TABLE 7: RESULTS OF HIERARCHICAL REGRESSION OF PERCEPTIONS OF ORGANIZATIONAL JUSTICE ON TURNOVER INTENTIONS**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Model 1 Std. β</th>
<th>Model 2 Std. β</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1: Control Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.11</td>
<td>-.12</td>
</tr>
<tr>
<td>Gender$^a$</td>
<td>.19**</td>
<td>.05</td>
</tr>
<tr>
<td>Marital$^b$</td>
<td>-.02</td>
<td>.03</td>
</tr>
<tr>
<td>Education Level</td>
<td>-.10</td>
<td>-.11</td>
</tr>
</tbody>
</table>
As can be observed from Table 7, the control variables managed to explain 7.0% of the variance in turnover intentions ($R^2 = .07$, $F$-Change = 3.49, $p < 0.01$). Of the five control variables, only respondents’ gender ($\beta = .19, p < 0.01$) and organizational tenure ($\beta = .21, p < 0.01$) was significantly related to turnover intentions. Adding the three model variables relating to organizational justice, the $R^2$ increased to .45. This indicated that organizational justice was able to explain an additional of 38% ($R^2$ Change = .38, $p < 0.01$) of the observed variations on turnover intentions and above the effects of demographic variables. Of the three organizational justice dimensions, only two dimensions namely distributive justice and procedural justice were significantly and negatively predict turnover intentions. Indeed, distributive justice had the most impact on the prediction of turnover intentions ($\beta = -.56, p < 0.01$), and followed by procedural justice ($\beta = -.26, p < 0.01$). In other words, distributive justice was found to be more influential in explaining the variation in turnover intentions. Conversely, the interactional justice dimension (H1c) had no significant relationship with turnover intentions. In sum, these findings only support for H1a and H1b. Thus, the hypothesis is partially supported.

**DISCUSSION**

This study aimed to examine the predictors of managers’ turnover intentions in the Malaysian hotel industry. Particularly, the purpose of this study was to determine the influence of hotel managers’ perceptions of organizational justice on turnover intentions. The results confirmed that, of the three organizational justice dimensions, only distributive justice and procedural justice were significantly and negatively related to turnover intentions. Nevertheless, the perceptions on procedural justice showed an insignificant relationship with turnover intentions.

Results proved that distributive justice have a significant negative influence on turnover intentions, as hypothesized. This relationship is consistent with the findings of Aryee & Chay (2001) and Lee (2000). From this study, it could be said that if the
managers feel contented in what they receive compared to those of a referent other, they are more likely to be productive and remain with the organization. Indeed, managers who perceived fair prospects of different work outcomes particularly with regards to pay satisfaction, work schedule, workload, rewards, and job responsibilities may viewed their current organization as favorable and might not see outside alternatives as attractive. Thus, the result implied that hotel managers who perceive a higher level of distributive justice are less likely to have the intention to leave their current organization. Similarly, procedural justice appeared to be significantly and negatively predicts on turnover intentions as hypothesized. This finding is in incongruence with Khatri et al. (2001). The finding from this study indicates that high perceptions of fairness of the formal decision-making procedures would influence the managers to stay in the organization. In other words, managers are more accepting decisions that results from a guaranteed fair procedural treatment by their organization. Procedural justice can be assessed in terms of the fairness and consistency of the organization’s policies and practices received by the managers. For example, if the management of the hotel clarifies and applied consistent job decisions, allow managers to challenge or appeal job decisions and give unbiased information upon request, they would evaluate procedures made by the organization to be fair. Hence, when managers have high perceptions of procedural justice in their organization, they are less likely to experience turnover intentions.

Surprisingly, the interactional justice was found to have insignificant relationship with turnover intentions. This finding was contrary with the recent work of Hubbell and Chory-Assad (2005), who found that if managers’ perceived fairness and quality of communication received in their organization, they are less likely to leave the organization. One possible explanation for this unexpected finding is managers in this sample may perceived the interpersonal treatment they received to be unfair (e.g. treated with dishonesty and disrespect) and, in turn, they are progressively to seek more alternative options of better job position through external labor market. Specifically, as the external labor market becomes more attractive, managers’ tended to engage more in job-search behaviors, reflecting increased intentions to leave the organization. Another explanation is that there may be a lack of interpersonal relationship between the managers and the top management. Hotel managers in this study may not have a close interaction with the top management since their job descriptions are more performing on operational tasks which require high customer contact and less supervision from the management (Dittmer, 2002). In addition, the “culture” or the “nature” of high job mobility among employees in the hotel industry as reported by Iverson and Deery (1997) also could be one of the reasons as managers in this sample continuously seek for better job promotions and job security.

The overall findings of this study support previous researches on the relationship between organizational justice (distributive justice and procedural justice) and turnover intentions (Aryee & Chay, 2001; Khatri et al., 2001; Loi et al., 2006). Consistent with this notion, the result implies that hotel managers who have higher perceptions towards fairness of the outcomes received (distributive justice) and fairness to the procedures used to determine the outcomes (procedural justice), would be less likely to have the intention to leave their organization. Loi et al.’s (2006) study on practicing solicitors in Hong Kong approved that the perceptions of fairness
of treatment received in the organization are crucial factors in affecting employees’ intention to leave or not to leave their organization. They found that both distributive justice and procedural justice have significant impacts on employees’ intention to leave. On the hotel sample, this finding is contradict with Lee (2000) study who reported that the perceptions of distributive justice was found to be negatively related to managers’ turnover intentions, whereas procedural justice was positively associated with turnover intentions. He further argued that most middle-level hotel managers only necessitate for better pay or rewards, regardless of fairness in their organization’s procedures. In simplest terms, even if managers’ are guaranteed with fair procedural treatment, they are more likely to leave the organization.

**CONCLUSIONS**

Based on the aforementioned discussion, it can be concluded that the perception of fairness of rewards allocation and procedures received in the organization prompts managers to reciprocate with their behavioral intentions. It is logical to predict that when managers’ perceived that they are treated fairly in terms of outcome and procedures, they tend to stay in their current organization and don’t have the intention to seek for a fairer alternative. Even though it is not hypothesized, the results highlighted that the perceptions of distributive justice is found to have a strong impact on turnover intentions compared to procedural justice. This is in accordance with Roberts et al. (1999) and Rahim et al. (2001) who reported that distributive justice was more important predictor in managers’ behavioral intentions (turnover intentions) than procedural justice. On demographic factors, only managers’ gender and organizational tenure had a significant relationship with turnover intentions. It was observed that, most male managers’ who have high or low perceptions of organizational justice may have the intention to leave their organization. Additionally, the longer the managers’ stayed in their particular organization, the higher their turnover intentions.

From the managerial point of view, the findings from this research suggest that the relevant hotel authorities concerned with reducing turnover intentions among their managers should be consistent and focus their attention in providing adequate fairness in terms of reward allocation, formal procedures, and interpersonal treatment that fosters a positive employee-organization relationship. It is hope that the research findings may offer some insights to the hotel organization in Malaysia to better understand on how to retain their valuable managers in attempting to reduce turnover intentions. In addition, this paper can make some useful contributions to the body of knowledge on the existing turnover literature to theorizing about the influence of managers’ perceptions of organizational justice on turnover intentions with regards to the current Malaysian scenario. It is worth mentioning that organizational justice (distributive justice and procedural justice) played vital role in predicting managers’ turnover intentions as such perceptions of organizational fairness, in turn, will reduce managers’ likehood of quitting the organization.
Several limitations of the study were also identified. The first limitation of this study relates to the sample, which derived from managers within one particular industry alone (3&4-star medium-sized hotels) located in a particular region of the country. Thus, the findings obtained may not be generalized to other samples across different regions or industries. The use of a larger sample within the same industry or from other industries would improve generalizability of the findings. Second, this study is limited in scope, and given that there may be other organizational factors (e.g. psychological contract violation, organizational politics, etc.) that influence managers’ turnover intentions. It is also suggested that the general conceptual model relating beliefs-attitudes-behavioral intentions relationship (Fishbein & Ajzen, 1967) can be utilized to predict the hotel managers’ turnover intentions in the Malaysian setting and, thus, future research might consider the mediation effect of affective commitment (attitudes) in the organizational justice (beliefs) and turnover intentions relationship (behavioral intentions). Indeed, researchers who interested in this area are recommended to explore these elements in future research. Finally, given the cross-sectional nature of this study, a typical limitation of cross-sectional studies is the constraint of their ability to prove a cause-effect relationship between the predictor variables and the criterion variables. Hence, it is suggested that future research should consider experimental or longitudinal approach and using other additional behavioral outcomes of organizational justice such as organizational citizenship behavior, organizational trust, and organizational commitment.

REFERENCES


