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FOREWORD BY MIA PRESIDENT

DATUK MOHD NASIR AHMAD

The Malaysian Institute of Accountants is pleased to extend to you this e-book which is a collection of the winning articles of the MIA Articles of Merit Award on Professional Accountants in Business 2010.

Member development is a one of MIA's main agendas and as such, contributions from members who are Professional Accountants in Business (PAIB) have to be acknowledged. MIA in turn constantly interacts with members and encourages them towards developing their professional knowledge and skills with the objective of enhancing the members' status.

With more PAIB members joining, it is a clear indication that this segment of the profession has a significant role to play in the nation building agenda. This e-book intends to provide a platform for engagement on issues and topics relevant to the profession. It is hoped that the articles will lead to the adoption and development of best practices.

This collection of articles is also a means of giving due recognition to the authors. What is conveyed between the lines has been deemed valuable for its function in developing the roles of the PAIB.

In July 2009, the competition was opened to professionals, academicians and students from the accountancy fraternity. Following an adjudication process, the 5 articles were chosen and are featured in this e-book. The articles are current and are in relation to the events shaping the challenging business landscape of our time. We certainly hope the e-book will offer much value to readers.

Thank you.

ACKNOWLEDGEMENTS

We hope you find these articles interesting and insightful. We wish to record our appreciation to the parties that have made this Award and the publication of the e-book possible namely the Panel of Judges and the Review Team of the Professional Accountants in Business Committee.

We also wish to thank the PAIB Committee members for their guidance and the MIA PAIB Department Management team for their hard work in this Award.

To the authors who participated and contributed their time and effort in submitting their articles, we thank you.

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CONSOLATION PRIZE

Effects of Task Complexity on Knowledge Sharing Among Professional Accountants in Malaysia

Dr. Michelle Mee Seong Phang

Professor Dr. Foong Soon Yau

ABSTRACT

One of the key challenges facing the accounting profession in the knowledge-based economy is the growing diversity of clients' or users' information requirements that necessitate accountants to seek skills and knowledge that are well beyond the traditional accounting skills set. More than ever, the professional accountancy firms need to synthesize and leverage the experiences and the collective knowledge of their employees and to effectively share, manage and use the knowledge to enhance task performance. Prior studies on knowledge management have focused mainly on the efficacy of various types of organizational infrastructure or technological enablers to facilitate knowledge sharing in a firm without distinguishing the manner in which knowledge could be effectively shared. As the nature of task assignments or task complexity influences the knowledge acquisition process, the impact of task complexity on knowledge sharing has not been explicitly investigated in a professional setting, especially in a developing country such as Malaysia. An understanding of the constituents of task complexity and how skill and knowledge requirements vary with task complexity are useful for aligning the appropriate knowledge sharing activities to the knowledge requirements for performance of varying task complexity.

This study examines how task complexity influences the mode and effectiveness of knowledge sharing among professional accountants in Malaysia. This study used a structured questionnaire and copies were mailed to 1,000 members of the Malaysian Institute of Accountants (MIA). However, only 120 completed questionnaires were returned for analysis. The key finding of this study is that task complexity is significantly related to all modes of knowledge sharing, suggesting that the importance and the need for knowledge sharing increase with task complexity. Coordinative complexity and dynamic complexity were positively related to all modes of knowledge sharing, while the relationship between component complexity and overall knowledge sharing was negative and insignificant. The findings may have serious implications for the development of an effective knowledge sharing strategy in knowledge intensive organizations, such as professional accounting firms. Appropriate type of knowledge sharing activities must be facilitated to align knowledge acquisition and task performance. Further study, however, is needed to examine whether the weak influence of the socialization knowledge sharing mode in the dynamic task complexity environment is culturally related.

1.0 INTRODUCTION

One of the key challenges facing the accounting profession in the knowledge-based economy is the growing diversity of clients' or users' information requirements that necessitate accountants to seek skills and knowledge that extend beyond the traditional accounting skills set. In other words, the role of the accounting profession has now extended beyond that of merely providing information for financial reporting to involvement in a variety of decision making processes that requires a much broader scope of skills and competencies.

Many aspects of the traditional accounting and auditing tasks have been automated and made less laborious with the increasing use of smart and specialized software (Elliott and Jacobson, 2002). The types of services provided by professional accounting firms have also proliferated with newer services offered ranging from systems-related works to commercial risk analysis and other assurance services. The nature of the professional accounting services rendered as well as the role of accountants in organizations is also becoming more strategic in focus.

Knowledge is 'the' resource of the future that would contribute to a firm's value creation and sustain its competitive advantage (Nonaka, 1991, 1994; Nonaka and Konno, 1998; Senge, 1990). As knowledge-intensive firms, professional accountancy firms have to depend heavily on the expertise, insight and experience of their professional employees to sustain their competitive advantage. More than ever, professional accountancy firms need to effectively synthesize and leverage on the experience and the collective knowledge of their employees to facilitate knowledge sharing and utilization to enhance task performance.

Prior studies on knowledge management have focused mainly on the efficacy of various types of organizational infrastructure or technological enablers to facilitate knowledge sharing in a firm without distinguishing the manner in which knowledge is shared (Bennett and Gabriel, 1999; Choo, 1996; Davenport and Prusak, 1998; DeLong and Fahey, 2000; Gold et al., 2001; Gupta and Govindarajan, 2000; Hedeline and Allwood, 2002; Holsapple and Joshi, 2001; Nevis et al., 1995; Nonaka, 1994; O'Dell and Grayson, 1999; Ruggles, 1997).

As the nature of task assignments or task complexity could influence the knowledge acquisition process, the impact of task complexity on knowledge sharing has not been explicitly investigated in a professional setting, especially in a developing country such as Malaysia. An understanding of the constituents of task complexity and how skill and knowledge requirements vary with task complexity would aid the development of an appropriate knowledge sharing strategy in knowledge-intensive firms, such as the professional accountancy firms. This study examines how task complexity is related to the mode of knowledge sharing among professional accountants in Malaysia.

2.0 KNOWLEDGE SHARING

The sharing of knowledge among employees is a vital component of knowledge management activities in organizations (Cabrera and Cabrera, 2002; Jarvenpaa and Staples, 2000; Nahapiet and Ghoshal, 1998; Wasko and Faraj, 2000). Based on Nonaka and Takeuchi's (1995) knowledge sharing model, as shown in Figure 1, each of the processes is expected to enhance knowledge sharing effectiveness. Nonaka and Takeuchi (1995) identified four modes of knowledge sharing: *socialization*, *externalization*, *internalization* and *combination*. This framework is based on the dichotomy between tacit knowledge and explicit knowledge as well as the distinctions between individual knowledge and collective knowledge. They consider the conversion process as a 'knowledge spiral' in which tacit and explicit knowledge interacts and interchanges into each other in a never-ending spiral.

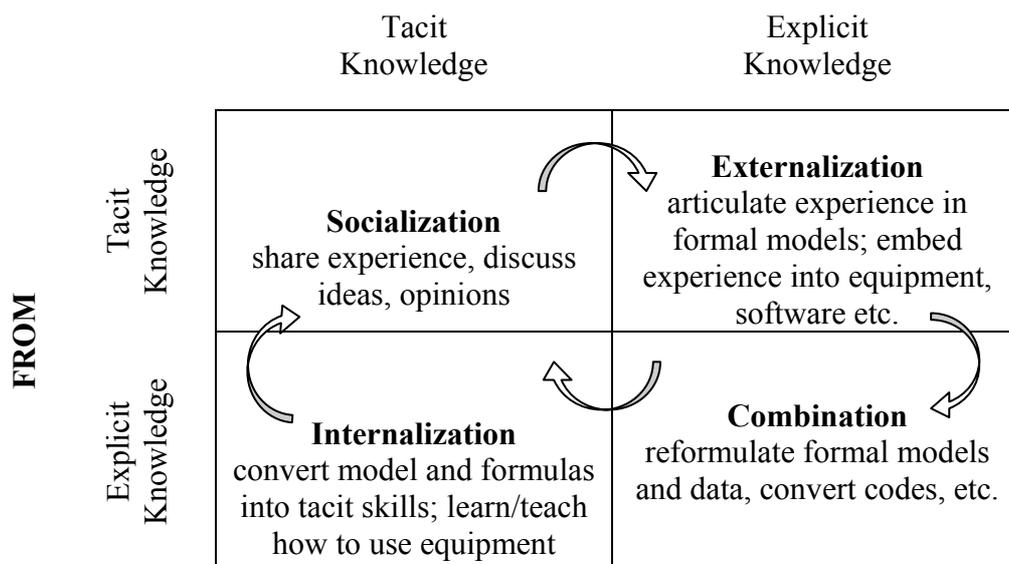


Figure 1: The Knowledge Sharing Model
Source: Adapted from Nonaka and Takeuchi (1995)

Socialization is the sharing of tacit knowledge such as mental models and technical skills between individuals (Nonaka, 1994; Nonaka and Konno, 1998; Seufert et al., 2003). Nonaka and Konno (1998) suggested that tacit knowledge is shared through joint activities as those involving teamwork. Face-to-face experiences and informal social networks are critical for sharing of tacit knowledge. *Externalization* is the conversion of tacit knowledge into explicit knowledge. This involves the transformation of one's idea, experience or insight into readily understandable documented forms or models (Bolisani and Scarso, 1999; Nonaka and Konno, 1998; Seufert et al., 2003). As tacit knowledge cannot be easily documented or codified directly; this process involves deductive or inductive reasoning or creative inference (Nonaka and Konno, 1998) which may simplify the original content. *Externalization* is often supported by the use of metaphors, analogies and visualization aids (Seufert et al., 2003). *Combination* is the conversion of explicit knowledge into more systemized or complex sets of explicit knowledge (Nonaka and Konno, 1998; Seufert et al., 2003). During this process, explicit knowledge is communicated or diffused through presentations or meetings, then, explicit knowledge is further systemized by making it more usable. The *combination* process increases the practical value of existing knowledge and its transferability (Seufert et al., 2003). *Internalization* is the conversion of explicit knowledge into tacit knowledge (Nonaka and Konno, 1998; Seufert et al., 2003). Explicit knowledge is embodied in action and practice, thus, individuals need to experience what others go through in order to acquire the relevant knowledge. When explicit knowledge is internalized into an individual's tacit knowledge, a shared mental model is formed within the firm, thereby starting a new spiral of knowledge conversion. As the interaction among these four processes iterates, it facilitates the exchange, refinement and extension of organizational knowledge base.

3.0 TASK COMPLEXITY

Attention has been devoted to the understanding of skills and knowledge requirements for complex task performance (Grandori, 1997; Williamson, 1993). Empirical evidence suggests that complexity changes the association between domain knowledge and decision performance in auditing tasks (Ashton, 1990; Simnet, 1996; Tan and Kao, 1999), scheduling tasks (Campbell and Gingrich, 1986) and medical diagnosis (Groen and Patel, 1988).

Schroder et al. (1967) identified three primary properties of a complex task, consisting of information load, information diversity, and degree of uncertainty involved. Task complexity increases as each of these dimensions increases. Steinmann (1976), however, equates complexity with the absolute amount of information involved in a task, the internal consistency of the information and the variability and diversity of the information. Other studies define task

complexity in terms of task characteristics such as repetitive, analyzability, apriori determinability, the number of alternative paths of task performance, outcome novelty, number of goals and conflicting dependencies among them, uncertainties between performance and goals, number of inputs, cognitive and skill requirements, as well as time-varying condition for task performance (Campbell, 1988, Järvelin, 1987; MacMullin and Taylor, 1984). Task uncertainty or complexity is negatively related to knowledge about the task information requirements, its process and output. Therefore, the more structured the task, the less complex is its task performance (Byström and Järvelin, 1995; Van den Ven and Ferry, 1980). Thus, a highly complex task requires processing of more and relatively inconsistent, as well as ambiguous information cues, and there are many potential decision outcomes. In contrast, a low complex task has less and relatively consistent processed information cues, and few potential decision outcomes (Bonner, 1994; Chung and Monroe, 2001).

Wood (1986) suggests that required acts and information cues are important task inputs because “they set upper limit on the knowledge, skills, and resources individuals need for successful task performance” and opines that task complexity is a useful construct for differentiating tasks. He posits three dimensions of task complexity as (1) component complexity, (2) coordinative complexity, and (3) dynamic complexity.

Component complexity of a task defines the number of distinct and independent acts or actions and the number of distinct information cues involved in the task (Wood, 1986). It represents the number of acts that needs to be executed to accomplish the task and the number of information cues that must be processed in performing the task. Knowledge and skills requirements resulting from component complexity tasks are characterized by computational complexity involving many agents and activities (Grandori, 1997; Simon, 1962). Formal processing support tools, such as codification and documentation, are effective mechanisms to coordinate the complementary activities and to integrate the different sources of information and knowledge in a structured task environment (Cowan et al., 2000; Grandori, 1997). Performance of routine and repetitive accounting tasks reflects relatively low component complexity.

Coordinative complexity of a task refers to the form and strength of the relationships between acts, information cues, and sequencing of behavior (Wood, 1986). It encompasses issues such as timing and sequencing of acts, the required frequency of acts, the required intensity of acts, and location requirements for performance of required acts. The more interactions in sequencing, timing, intensity, frequency and location requirements, the greater is the knowledge and skills

individuals must have to be able to perform the task. These interactions are conceptually equivalent to nonlinearity in the structural form of tasks which are characterized by knowledge involving technical complexity. When a task involves technical complexity, it requires distinctive skills, knowledge and competencies from different groups of individuals (Zander and Kogut, 1995). Individual knowledge is inadequate by itself to optimally complete the tasks, but individuals from different disciplines within the firm would collectively bring together a variety of skills and domain knowledge to undertake tasks such as system-related jobs, mergers and acquisitions, and corporate liquidation job assignments.

Dynamic complexity of a task reflects the changes in acts, information cues, sequencing of behavior and the relations among them. Due to changes in the environment, individuals must frequently adapt to changes in the cause-effect or means-ends relationships during performance of the task (Wood, 1986). This implies that the greater the variation in the relationships between information cues, judgments and decisions, the greater is the dynamic complexity. These changes can modify the required skills and knowledge needed for task completion. As the task is unstructured, the information requirements, the process and the outcome often cannot be a priori determined. In this case, knowledge as characterized by cognitional complexity and sharing of merely explicit knowledge is not expected to lead to successful task performance (Grandori, 1997). Instead of relying on knowledge repository or archive, crucial task knowledge has to be shared through interpersonal communication or socialization by means of shared mental models and common understanding. Business advisory job assignments on business turn-around and business strategy consulting are examples of tasks with high dynamic complexity.

Different types of task complexity have different knowledge domains and skills requirements, and that suggests a differing relation between task complexity and mode of knowledge sharing.

4.0 HYPOTHESIS DEVELOPMENT

4.1 Relationship between Task Complexity and Knowledge Sharing

One of the distinctive factors potentially affecting the mode of knowledge sharing in a professional setting is the nature of tasks and its complexities. Numerous studies have demonstrated the effects of task complexity on information use, decision-making and task performance (Chang et al., 1997; Campbell and Gingrich, 1986; Larichev and Moshkovich, 1988).

The accounting professionals are performing a variety of tasks with varying complexities that imposes demands on their knowledge resources differently. Among other things, complexity can be affected by the amount of information the accounting professionals must evaluate and the clarity of their evaluation criteria (Bonner, 1994). In this context, as task complexity increases, domain knowledge becomes more influential (Bonner, 1994). According to prior studies, people with more domain knowledge weight cues and make decisions differently from people with less domain knowledge (Libby and Luft, 1993; Payne et al., 1993) and people develop decision making skills by acquiring and refining domain specific knowledge (Anderson, 1982). Thus, this study hypothesizes that the complexity of a task is a central feature in determining information needs and the consequent mode of knowledge sharing:

Hypothesis, H₁: There is a positive relationship between task complexity and the four modes of knowledge sharing

Component complexity involves coordination of complementary activities and integration of various sources of computational knowledge in a structured task environment, such as the performance of routine and repetitive accounting tasks. Therefore, the sharing of knowledge required a process of systemizing these various activities and various sources of information or knowledge into an easily accessible database. This mode of knowledge sharing implies combining and exchanging knowledge through documentation and codification. In this context, the combination mode of knowledge sharing is most often seen when accountants access a knowledge or information database through information and communication technology.

On the other hand, coordinative complexity required technical knowledge from different individuals or groups of individuals. For example, merger and acquisition decisions, and system-related consulting jobs required distinctive skills and knowledge. As such, the sharing of knowledge involves articulating tacit knowledge into explicit knowledge or embodying explicit knowledge into tacit knowledge. To complete tasks, individuals need to relate knowledge that is far apart in their mind to each other. This interaction from tacit knowledge to explicit knowledge bridges the knowledge gaps between these individuals. Moreover, when individuals learn by doing, explicit knowledge is internalized into the individuals' tacit knowledge base in the form of a shared mental model. Thus, as individuals feel the realism or experience the experiences of others, their tacit knowledge is enriched.

For dynamic complexity, the task environment is unstructured and unexpected, such as strategy consulting and business advisory job assignments. Thus, the required knowledge to complete the tasks is cognitional and highly tacit. The sharing of tacit knowledge, however, cannot be leveraged easily. Tacit knowledge is shared through socialization or by ‘living in’ or ‘indwelling’ (Nonaka and Toyama, 2004) the surrounding world.

The above discussion leads to the following sub-hypotheses as shown in Figure 3 below:

- Hypothesis, H_{2(a)}: Component complexity is positively related to combination mode of knowledge sharing
- Hypothesis, H_{2(b)}: Coordinative complexity is positively related to internalization mode of knowledge sharing
- Hypothesis, H_{2(c)}: Coordinative complexity is positively related to externalization mode of knowledge sharing
- Hypothesis, H_{2(d)}: Dynamic complexity is positively related to socialization mode of knowledge sharing

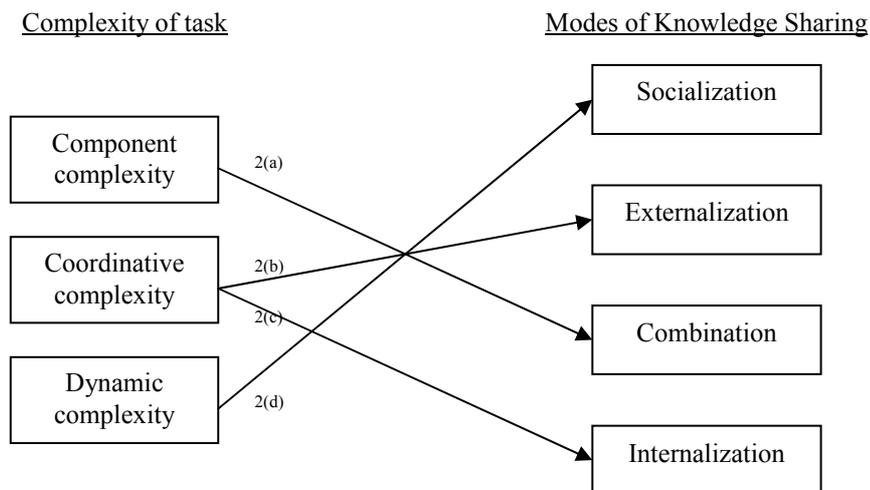


Figure 3: Relationship between component of task complexity and mode of knowledge sharing

5.0 RESEARCH METHOD AND DESIGN

5.1 Research instrument and data collection

This study used a structured questionnaire consisting of multiple-item measures that were adapted from prior studies. The items for measuring knowledge sharing were adapted from Nonaka et al. (1994), and appropriate changes in wordings were made to suit context familiar to the accounting professionals. The questionnaire was first pre-tested on a few practitioners and accounting academics to ensure that the questions asked were unambiguous and the items for measuring each construct were appropriate for the accounting setting. Responses to the questionnaire were made on a five-point rating scale, ranging from 1 to 5.

The respondents were members of the Malaysian Institute of Accountants (MIA). Out of the 1,000 copies of the questionnaire mailed, only 120 completed questionnaires were returned for analysis, despite reminders and follow-up calls made in an attempt to increase the response rate. The low response rate of about 12% was expected for mail questionnaire survey in Malaysia. The independent-samples t-tests did not indicate any significant differences between the early respondents and the late respondents.

5.2 Definition and measurement of constructs

Based on Wood (1986)'s definition and measures from Sims et al. (1976) and Withey et al. (1983), this study developed a series of questions to assess the nature of the respondents' work and job functions. All responses were measured on a five-point rating scale, with the low end (1) of the scale indicating low complexity and the high end (5) of the scale indicating high complexity for the respective dimensions. Based on Wood's (1986) definition of constructs, there is a hierarchical relationship between the three dimensions of task complexity. Although he fails to specify the exact form of the relationship between the three dimensions of complexity and total task complexity, Wood (1986) suggests that total task complexity is a weighted measure of the three dimensions with a unit of dynamic complexity contributing more than a unit of coordinative complexity which in turn contributes more than a unit of component complexity. Thus, this study subjectively weighted the three dimensions of task complexity on the basis of 3:2:1 to account for total task complexity.

The knowledge sharing model by Nonaka and Takeuchi (1995) provided the basis for measuring the modes of knowledge sharing. This model has been widely used in earlier studies (Becerra-Fernandez and Sabherwal, 2001; Lee and Choi, 2003; Sabherwal and Bacerra-Fernandez, 2003). This study adapted the multiple items validated by Nonaka et al. (1994) to assess the four modes of knowledge sharing by making changes to wordings to suit the accounting profession setting. All items were rated based on the 5-point scale, with “1 = Rarely” and “5 = Always”. The Cronbach’s Alpha coefficients computed for items measuring the four modes of knowledge sharing were acceptable (Nunnally and Bernstein, 1994) and they ranged from 0.80 (*Internalization mode*) to 0.77 (*Socialization mode*).

6.0 RESULTS AND DISCUSSIONS

6.1 Demographic profile of respondents

Table 1 summarizes the respondents’ demographic profile. About 49 percent of the respondents were male and 51 percent were female. The age of about 56 percent of the respondents was below 35 years old and about 40 percent of the respondents’ aged between 35 to 45 years old. The respondents were generally well educated with almost 62 percent possessing a bachelor’s degree and about 21 percent have a master’s degree. Approximately 42 percent of the respondents were members of UK-based professional bodies and 36 percent of the respondents were members of Australian-based professional bodies. Nearly 60 percent of the respondents earned more than RM5,000 per month.

Approximately 34 percent of the respondents worked in public accounting and consultancy firms. About 45 percent of the respondents were at the managerial level and nearly 19 percent of the respondents were at the senior management level such as partner, general manager and executive director. Only around 7 percent of the respondents had worked for less than 5 years, while about 44 percent of the respondents had more than 10 years of working experience. Overall, the sample of respondents appeared to be quite diverse, representing people from various demographic groups, experiences, industries and management hierarchical levels.

Table 1: Respondents' Demographic Profile

	Percentage		Percentage
Gender		Age	
Male	48.6	Less than 35	56.1
Female	51.4	35 – 45	39.3
		More than 45	4.6
Academic Qualification		Professional Qualification	
Bachelor's	61.5	Members with UK-based	41.5
Master's	20.8	Members with Australian-based	35.9
Others	17.7	Members with other qualifications	22.6
Monthly Income		Industry Sector	
Less than RM5,000	40.2	Commerce & Industry	47.2
RM5,001 – RM10,000	47.8	Public Accounting & Consultancy	34.3
More than RM10,000	12.0	Others	18.5
Job Position		Working Experience	
Executive & Supervisory	27.8	Less than 5 years	7.4
Managerial	45.4	5 - 10 years	49.1
Senior management	18.5	More than 10 years	43.5
Others	8.3		

6.2 Reliability and Validity Analysis

The instrument's reliability was evaluated using the Cronbach's alpha coefficient. With the exception of component complexity (0.682) and dynamic complexity (0.516), all of the other coefficients were above the minimum recommended standard of 0.7 (Hair et al., 2006; Nunnally and Bernstein, 1994). However, it is quite common to find a slightly lower Cronbach's alpha value (e.g. 0.50) if a scale has less than ten items (Pallant, 2001). Factor analysis using principal component method with varimax rotation was used to check discriminant validity and most loadings were found to be high on the respective constructs and meet the minimum level of ± 0.4 for interpretation of structure (Hair et al., 2006). Items with loading less than 0.3 or substantial cross loadings were deleted from further analysis.

6.3 Descriptive Statistics

The descriptive statistics for task complexity and knowledge sharing are summarized in Table 2. The mean for component complexity (2.57) is considerably lower than the means for coordinative complexity (3.63) and dynamic complexity (3.66), suggesting tasks performed by professional accountants who responded to this study are less structured and repetitive. The weighted mean for task complexity was 3.47 indicating a high level of complexity in tasks performed by professional accountants. The means for all modes of knowledge sharing were above 3.0. While internalization had the highest mean of 3.44, socialization had the lowest mean of 3.19. With an overall mean of 3.31 and a fairly low standard deviation of 0.683, knowledge sharing through various modes was quite evident among the respondents.

Table 2: Descriptive Statistics for Task Complexity and Knowledge Sharing

	Min	Max	Mean	Std. Deviation
Component Complexity	1.00	4.00	2.57	.640
Coordinative Complexity	1.00	5.00	3.63	.721
Dynamic Complexity	2.00	5.00	3.66	.642
Weighted Task Complexity			3.47	.466
Socialization Mode	1.00	5.00	3.19	.854
Externalization Mode	1.00	5.00	3.32	.936
Combination Mode	1.00	5.00	3.30	.862
Internalization Mode	1.67	5.00	3.44	.839
Knowledge Sharing	1.50	4.71	3.31	.683

6.4 Task Complexity and Knowledge Sharing

Table 3 summarizes the regression results that show that the relationships between weighted task complexity and *socialization* ($p = 0.039$), *externalization* ($p = 0.017$), *combination* ($p = 0.007$) and *internalization* ($p = 0.000$) are all highly significant. Given the statistically significant positive relationships, hypothesis H₁ is strongly supported.

Table 3: Results of Regression Analyses of Task Complexity on Four Modes of Knowledge Sharing

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1. Dependent: Socialization						
Constant	1.912	.616			3.102	.002
Weighted Task Complexity	.369	.176	.201		2.095	.039
$R^2 = .040$ Adj $R^2 = .031$ $F = 4.389$ $p = .039$						
2. Dependent: Externalization						
Constant	1.718	.671			2.561	.012
Weighted Task Complexity	.463	.192	.231		2.417	.017
$R^2 = .053$ Adj $R^2 = .044$ $F = 5.841$ $p = .017$						
3. Dependent: Combination						
Constant	1.617	.613			2.637	.010
Weighted Task Complexity	.484	.175	.262		2.765	.007
$R^2 = .068$ Adj $R^2 = .060$ $F = 7.646$ $p = .007$						
4. Dependent: Internalization						
Constant	.952	.567			1.679	.096
Weighted Task Complexity	.718	.162	.399		4.437	.000
$R^2 = .159$ Adj $R^2 = .151$ $F = 19.688$ $p = .000$						
5. Dependent: Knowledge Sharing						
Constant	1.551	.472			3.285	.001
Weighted Task Complexity	.508	.135	.347		3.768	.000
$R^2 = .120$ Adj $R^2 = .112$ $F = 14.200$ $p = .000$						

To explore further the relationship between the dimension of task complexity and mode of knowledge sharing, each mode of knowledge sharing was regressed on the three dimensions of task complexity. Table 4 shows that coordinative complexity and dynamic complexity were positively related to all modes of knowledge sharing, while component complexity was negatively related to the *externalization* mode, and it also did not have significant relationships with *socialization*, *combination* and *internalization* modes of knowledge sharing. Coordinative complexity was strongly related to *combination* ($p = 0.002$) and *internalization* ($p = 0.000$) modes, but only marginally related to *socialization* ($p = 0.052$) and *externalization* ($p = 0.097$) modes. The relationship between dynamic complexity and *externalization* mode ($p = 0.003$) and that between dynamic complexity and *internalization* mode ($p = 0.001$) were strongly significant. On the other hand, the relationship between dynamic complexity and *socialization* mode ($p = 0.082$) and that between dynamic complexity and *combination* mode ($p = 0.065$) were only marginally significant. Therefore, hypothesis H_{2a} is not supported, while hypothesis H_{2b} is strongly supported, with hypothesis H_{2c} and hypothesis H_{2d} only marginally supported.

The relationship between coordinative complexity and overall knowledge sharing ($p = 0.001$) and that between dynamic complexity and overall knowledge sharing ($p = 0.001$) were strongly significant, while the relationship between component complexity and overall knowledge sharing was negative and insignificant. An examination of the β values of the regression equations reveals that dynamic complexity is more significantly associated with the *externalization* mode of knowledge sharing, while coordinative complexity is more associated with the other three modes of knowledge sharing. The results indicate that the *externalization* mode of knowledge sharing could be most instigated by the operation of dynamic complex tasks while the other three modes of knowledge sharing may well be triggered by the performance of coordinative complex tasks. In addition, among the three dimensions of task complexity, coordinative complexity had the greatest effect on overall knowledge sharing.

An examination of the respondents' profile revealed that a large majority of the respondents were holding senior or managerial positions and performing tasks that required application of more sophisticated knowledge. An inspection of mean scores for task complexity in Table 2 also indicated that respondents rated much higher scores for their involvement in tasks with dynamic complexity and coordinative complexity than that with component complexity, suggesting that their tasks were less of component complex in nature.

Performing a coordinative complex task primarily requires distinctive knowledge embodied in disparate sources. To optimally complete a coordinative complex task, individuals from different functional groups and disciplines must be brought together. Therefore, when performing a coordinative complex task, it is more likely to benefit from *externalization* and *internalization* modes of knowledge sharing. Through *internalization*, an individual acquires tacit knowledge from others. On the other hand, through *externalization*, an individual shares his tacit knowledge with others. The results in Table 4 show that there was a highly significant association between coordinative complex task and *internalization* but only a marginally significant association between coordinative complex task and *externalization*. This rather intriguing result reflects the very nature of the human being which is self-centered. While an individual may happily tap into the knowledge base in his/her quest to seek possible solutions to a task, he/she may not freely share his/her knowledge with others, in particular tacit knowledge. In an effort to hold onto individual powerbase and perceived values within a firm, an individual may be reluctant to convert his/her tacit knowledge into a more comprehensible form.

The *Socialization* mode involves the manifestation of tacit knowledge. Tacit knowledge is highly personal. From this perspective, it is not formally articulated in writing but usually shared via joint activities or personal experiences. Therefore, an informal network or social process may facilitate freedom of expression and consequently the sharing of tacit knowledge. This is particularly relevant to a dynamic complex task. In order to complete a dynamic complex task individuals will have to adopt a knowledge sharing process that actively refines and explicates tacit knowledge. Interestingly, Table 4 highlights that dynamic complexity only had a marginal significant association with the *socialization* mode but strong significant associations with the *externalization* and *internalization* modes of knowledge sharing. One plausible reason for this finding is that when performing a highly dynamic complex task, individuals need to integrate diverse fields of knowledge. Completion of the task required exceptional and valuable expertise which is typically tacit. In view of that, it is not surprising that dynamic complexity is associated significantly with modes of knowledge sharing that are tacit knowledge related. Despite that, it is quite impossible to diffuse one's tacit knowledge totally and completely.

Table 4: Summary of Regression Results of Dimensions of Task Complexity on Four Modes of Knowledge Sharing

	Socialization	Externalization	Combination	Internalization	Knowledge Sharing
Component Complexity	$R^2 = .003$ Adj $R^2 = -.007$ $F = .297$ $\beta = -.053$ $t = -.545$ $p = .587$	$R^2 = .046$ Adj $R^2 = .037$ $F = 5.136$ $\beta = -.215$ $t = -2.266$ $p = .025$	$R^2 = .004$ Adj $R^2 = -.005$ $F = .458$ $\beta = -.066$ $t = -.677$ $p = .500$	$R^2 = .015$ Adj $R^2 = .006$ $F = 1.600$ $\beta = -.122$ $t = -1.265$ $p = .209$	$R^2 = .0022$ Adj $R^2 = .013$ $F = 2.382$ $\beta = -.148$ $t = -1.543$ $p = .126$
Coordinative Complexity	$R^2 = .035$ Adj $R^2 = .026$ $F = 3.860$ $\beta = .187$ $t = 1.965$ $p = .052$	$R^2 = .026$ Adj $R^2 = .017$ $F = 2.810$ $\beta = .161$ $t = 1.676$ $p = .097$	$R^2 = .085$ Adj $R^2 = .076$ $F = 9.856$ $\beta = .292$ $t = 3.139$ $p = .002$	$R^2 = .148$ Adj $R^2 = .140$ $F = 18.412$ $\beta = .385$ $t = 4.291$ $p = .000$	$R^2 = .105$ Adj $R^2 = .096$ $F = 12.409$ $\beta = .324$ $t = 3.523$ $p = .001$
Dynamic Complexity	$R^2 = .029$ Adj $R^2 = .019$ $F = 3.081$ $\beta = .170$ $t = 1.755$ $p = .082$	$R^2 = .082$ Adj $R^2 = .073$ $F = 9.290$ $\beta = .286$ $t = 3.048$ $p = .003$	$R^2 = .032$ Adj $R^2 = .023$ $F = 3.488$ $\beta = .180$ $t = 1.868$ $p = .065$	$R^2 = .106$ Adj $R^2 = .098$ $F = 12.368$ $\beta = .326$ $t = 3.517$ $p = .001$	$R^2 = .095$ Adj $R^2 = .086$ $F = 10.883$ $\beta = .308$ $t = 3.299$ $p = .001$

7.0 CONCLUSIONS AND IMPLICATIONS

This paper examines how task complexity could affect sharing of explicit and tacit knowledge among professional accountants in Malaysia. A large majority of the respondents in this study were holding senior or managerial positions and performing highly complex tasks that required application of sophisticated knowledge. The key finding of this study is that task complexity is significantly related to all modes of knowledge sharing, providing evidence to support the need for knowledge sharing as task complexity increases. The findings also have implications for the development of an effective knowledge sharing strategy in knowledge intensive organizations, such as professional accounting firms. The appropriate types of knowledge sharing activities must be facilitated to align knowledge acquisition and task performance.

This study is of interest from both the theoretical and practical perspectives. It provides a richer understanding of task complexity and how it relates to modes of knowledge sharing in a professional setting. This paper highlights the importance of the *internalization* mode of knowledge sharing. As *internalization* enables the integration of explicit knowledge into tacit knowledge, it appears to be prevalent and contributes most to the professional competency of accountants. The changing role of the accounting profession creates the need to formally harness the vast and disperse experiences of others and synthesize these experiences into an individual's tacit knowledge. The high mean score of *internalization* reflects the profession's emphasis on continuous self learning and education. This study shows that tasks that are coordinative and dynamic in nature contribute significantly to an *internalization* mode of knowledge sharing. The findings of this study, however, may not be generalizable to other professional settings due to the limited sample size and the findings were based on experiences of professional accountants in a developing country. Further research is also needed to examine whether the weak influence of the *socialization* mode in the dynamic task complexity environment is culture-related. This study suggests that a longitudinal research be made to investigate the dynamic nature of knowledge sharing.

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9.0 AUTHORS

Dr. Michelle M. S. Phang is currently an accounting lecturer at the School of Accounting, Economics and Finance, Deakin University, Australia. Prior to her teaching position in Deakin University, she was an accounting lecturer at HELP University College in Kuala Lumpur. She obtained her B.Accy (Cum Laude) from University of Mississippi, MBA (International Business) from Georgia State University and PhD (Accounting) from Universiti Putra Malaysia. Dr. Phang is a member of CPA Australia and American Accounting Association. Her current research interest is in management control system, risk management, knowledge management and human asset specificity.

Professor Dr. Foong Soon Yau is currently an accounting professor at the Graduate School of Management, Universiti Putra Malaysia. She obtained her BS. (Econ) (2nd Upper) from the London School of Economics, MBA from Universiti Malaya and PhD (Information Systems) from the University of New South Wales, Australia. She is also a Fellow member of the Institute of Chartered Accountants in England and Wales and a member of the Malaysian Institute of Accountants. Professor Dr. Foong has published research papers in a number of international and national refereed academic journals, as well as professional journals. In addition, she has presented her research in numerous national and international conferences. Her research interests include intellectual capital measurement and reporting, knowledge management, as well as management accounting and corporate governance issues.

CONSOLATION PRIZE

A Longitudinal Analysis of Intellectual Capital Disclosure Trends Among Public-Listed Companies in Malaysia

Professor Dr. Foong Soon Yau

Mr Loo Sin Chun

ABSTRACT

Intellectual resources or intellectual capital (IC) are becoming the major driving force in the value-creation and value-sustenance processes in organizations in the current knowledge-based era, and determining an increasing portion of the market valuations of companies (Kooistra and Zijlstra, 2001). Empirical studies have indicated that increasing IC reporting improves transparency in capital markets and lowers cost of capital. Unfortunately, most of the intangible assets, except for those referred to in FRS 138, are omitted from the current financial statements due to the failure of these “intangibles” to meet the criteria for recognition under the current financial reporting framework. Professional accounting associations have acknowledged the inadequacy of the current financial reporting model in accounting for intellectual capital (IFAC, 1998). Unlike social and environmental information disclosures which are often the consequences of external social and political pressure, reporting of IC information is proactive and at the discretion of corporate management.

The study aims to provide an overview and analysis of the trend and pattern IC disclosure practices among the public-listed companies in Malaysia over a 3-year period from 2004 to 2006. Content analysis was used to determine the extent of IC disclosure in annual reports of a sample of public listed companies. Sixty companies consisted of the top 30 and the bottom 30 from the list of top 100 public-listed companies (ranked by market capitalization) at the end of 2006 were selected. The results of this study indicate that IC disclosure, which is often descriptive and in the narrative format, is not extensive in the 3-year period examined. However, the trend of IC disclosure from 2004 to 2006 is upward, suggesting a growing awareness among public-listed companies of the need to convey their IC to their external stakeholders. The low incidence of quantitative IC measures disclosed may be due to the general reluctance of these companies to reveal “too much” that may “erode” their competitive advantage.

Due to the lack of guidelines for IC disclosure, comparison of the presence of IC in the various companies is difficult. The larger as well as the service-based companies tend to disclose more IC information, but corporate profitability performance has no impact on the extent of IC disclosure. A key concern arising from the findings is the low level of disclosure related to the human capital component, even among the larger listed companies. New incentives and regulatory measures may be needed to encourage greater human capital development initiatives. More proactive reporting or voluntary disclosure should be encouraged to improve the quality of disclosure by public-listed companies to external stakeholders to enhance transparency, accountability and improve market efficiency.

1.0 INTRODUCTION

The last decade saw a shift from an economy driven by management of tangible resources to one in which transformation and growth are determined by intellectual or intangible resources (MERITUM, 2002). As tangible or physical assets can be easily imitated or acquired, this type of assets could no longer be strategic value-creating in the long term, and continue to be the source of competitive advantage in the new millennium. Most organizations are now aware of the need to develop their own intellectual resources or intellectual capital (IC) as the major driving force in their value-creation and value-sustenance processes in the current knowledge-based era. Intellectual resources or IC constitute an increasing portion of the market valuations of companies (Kooistra and Zijlstra, 2001).

According to Dumay and Tull (2007), intellectual capital is a critical element in the development of sustainable competitive advantage and firms should be motivated to voluntarily disclose their IC to reduce market information asymmetry amongst investors to attain market valuations that better reflect their earnings potentials. Hence, information asymmetry regarding the IC possessed by a company may result in its stock price volatility due to the uncertainty of investors in estimating the future payoffs and risks associated with its securities (Garcia-Ayuso, 2003) and that leads to a higher cost of capital (Sengupta, 1998). Excessive information asymmetry also may increase the insider trading gains resulting in a loss of investor confidence (Aboody and Lev, 2000). Empirical studies (Kooistra and Zijlstra, 2001; Li, *et al.*, 2008) have indicated that increasing IC reporting improves transparency in capital markets and decreases the uncertainty of investors which leads to a lowering of cost of capital and a higher market capitalization. Skandia AFS, a Swedish financial services firm, was the first company to prepare an IC statement in 1994 to report their “hidden” IC assets. The inclusion of an IC statement in a company’s annual report is rare, but the need for IC information by investors is growing. On the other hand, management may be against transparency or disclosure of certain strategic important information (Welch and Rotberg, 2006). According to Guthrie and Petty (2000), the biggest challenge faced by management of corporations is to reach a consensus on three key issues: the need to report IC, what elements of IC to report and how to report it.

The challenges involved in IC reporting arose as a consequence of limitations in the current financial reporting model. Even though the disclosure of several types of knowledge-based resources, such as patents, trademarks and copyrights, are mandatory under accounting standard (FRS 138), and are reported in the current, most of the other types of intangible assets such as those referred to in Guthrie and Petty (2000) are omitted from the financial statements due to the failure of these “intangibles” to meet the criteria for recognition under the current financial reporting framework. Professional accounting associations have acknowledged the inadequacy of the current financial reporting model in accounting for intellectual capital. For instance, the Financial Accounting and Management Accounting Committee of the International Federation of Accountants concluded that “...the current accounting model does not adequately capture the value [of intangible assets] nor represent them in a concise, meaningful format” (IFAC, 1998, p.2).

Unlike social and environmental information disclosures which are often the consequences of external social and political pressure, reporting of IC information is proactive and at the discretion of corporate management. In view of the apparent benefits arising from reduced information asymmetry through voluntary IC disclosure, corporate management should be motivated to reveal their “hidden assets” to improve market valuation, unless the management is concerned about losing proprietary information that could jeopardize the company’s competitive advantage. The study aims to provide an overview and analysis of the trend and pattern of IC disclosure practices among the top main board listed companies in Malaysia over a 3-year period from 2004 to 2006.

2.0 LITERATURE REVIEW

2.1 Related Theories

The motivation to voluntarily disclose intellectual capital information may be explained by several theories, such as the positive accounting theory, signaling theory, stakeholder theory, agency theory, institutional theory and legitimacy theory. Based on the positive accounting and signaling theory perspectives, IC information would be voluntarily disclosed if it benefits managers’ self interests through enhanced corporate reputation (Toms, 2002) and better rewards through higher share valuation arising from increased transparency to the capital market (Kooistra and Zijlstra, 2001). From the stakeholder or agency theory perspective, corporate management should provide adequate information in the corporate annual report by disclosure of the company’s intellectual resources and the manner in which such resources are

developed and used to achieve the corporate objectives to enable stakeholders to fully understand the corporate activities and evaluate the effectiveness of the managers (Degan, 2000). Institutional or legitimacy theory, on the other hand, posits that an organization would voluntarily disclose information on activities in order to gain long-term benefits arising from society's acceptance of its existence if the management perceived these activities are expected by the communities in which the organization operates.

2.2 IC Disclosure Studies

Empirical studies of IC disclosure in Australia (Guthrie and Petty, 2000), Canada (Bontis, 2003), Ireland (Brennan, 2001), Italy (Bozzolan, *et al.*, 2003), USA (Abdolmohammadi, 2005), UK (Roslender and Fincham, 2004), Sri Lanka (Abeysekera and Guthrie, 2005) and Malaysia (Foong *et al.* 2009; Goh and Lim, 2004) have been reported in the literature. Generally, these studies conclude that companies do not conform to a systematic or consistent format in reporting their IC attributes and the IC information is most often disclosed in qualitative or narrative terms. However, some of these studies reveal that there is an increasing awareness of the growing importance of IC and companies are attempting to report some IC information where ever possible in their annual reports.

An inter-country comparison of IC reporting was carried out by Vandemaele *et al.* (2005). Their study examined the extent of voluntary IC disclosure in samples of Dutch, Swedish and British firms in three measurement years; 1998, 2000 and 2002. Twenty of the largest listed companies in each of the three countries were selected. These three countries were selected because of their high IC performance indices, as reported by Bounfour (2003), and companies in these high IC indexed countries were presumed to have high awareness of the importance of developing and managing their IC. Based on the intellectual capital dynamic value approach (IC-dVAL) by Bounfour (2003), the IC performances of dozens of companies and organizations in 14 countries in the EU were measured. Sweden was found to have the highest IC performance index, followed by the Netherlands. Even though the IC performance index of the UK was ranked fifth, after two other Scandinavian countries, Finland and Denmark, it was still substantially better than the overall EU's average.

In Vandemaele *et al.*'s study, an information disclosure index similar to that used in Bozzolan *et al.* (2003) was computed with a 0 score for no IC information, 1 for reporting qualitative (narrative) information and 2 for quantitative (inclusive of both numerical and monetary terms) information. Their results show a clear overall increasing trend in IC disclosure for the

three countries. For all countries, and over all the three years, about 40% of disclosures relate to external structure, 30% relate to internal structure and 30% relate to human capital. In other longitudinal studies, a similar upward trend of IC disclosure is reported. For example, Williams (2001) analyzed 31 UK listed companies over the period of 1996 to 2000 and found a continuous upward trend in the average amount of IC information disclosed in the UK companies. Similarly, Abeysekera and Guthrie (2005) who examined the top 30 firms listed on the Colombo Stock Exchange between the period of 1998/1999 and 1999/2000, also reported an overall increase in all categories of IC over the 2-year period, despite a decline in the market capitalization of the top 30 firms examined. Consistent with previous studies, Abeysekera and Guthrie also highlighted the lack of a consistent framework and approach for disclosing IC in corporate annual reports. The most reported category was external capital, followed by human capital and the least reported was internal capital. Among the IC attributes reported, brand building, corporate image and business partnering are the top most reported IC attributes and the results reflect the growing competitive business environment in Sri Lanka during the 2-year period.

3.0 RESEARCH HYPOTHESES

Corporate size, industry sector and profitability have been found to influence the extent of voluntary IC disclosure in annual reports. From the institutional theory perspective, the larger firms are more visible and politically more sensitive. The need for these larger firms to gain recognition and acceptance by the various stakeholders for their long-term benefits would encourage these firms to voluntary disclosure more IC information to achieve greater transparency and reduce information asymmetry. In addition, the larger firms are likely to possess more IC resources and more financial resources to enable them to disclose more extensively their IC and other information items. Prior studies (Bozzolan, *et al.*, 2003; Hackston and Milne, 1996; and Hall, 2002) reported a positive relationship between corporate size and extent of information disclosure. Hence, Hypothesis H₁ is as follows:

H₁: Corporate size is positively associated with the extent of voluntary disclosure of intellectual capital information.

The nature of competition tends to vary with the industry due to differences in the business and operating environments. Due to the higher intensity of competition in the services sector, firms operating in the services sector are expected to place a greater emphasis on developing their intellectual capital resources to create and sustain their competitive advantage, as compared to firms operating in the traditional manufacturing sector which is expected to generally rely more on efficient management of physical resources to produce their physical goods. Service-oriented firms which by nature are more knowledge intensive (Dontoh *et al.*, 2004) are expected to have more IC information to disclose than the non-service oriented firms. Hence, hypothesis H₂ is as follows:

H₂: Firms in the services sector have more extensive IC information disclosure than firms in the non-services sector.

Based on the positive accounting theory and the signaling theory, the better-performing firms are likely to signal their economic potentials to investors by disclosing more extensively information related to earnings potential of their resources in their annual reports. Through the more extensive IC disclosure, the management of these firms would like to improve their ability to raise capital at a lower cost and to signal to the market the “correct” valuation of their shares. Studies on social responsibility reporting show that profitability is positively associated with the disclosure of social responsibility information (Suwaidan *et al.*, 2004). Thus, the following hypothesis H₃ is formulated for empirical testing:

H₃: Corporate profitability is positively associated with the extent of voluntary disclosure of intellectual capital information.

4.0 RESEARCH METHODOLOGY

4.1 Sample and Data Collection

Based on the list of the top 100 main board listed companies (by market capitalization) at the end of 2006, the top (largest) 30 and the bottom (smallest) 30 companies from the list were selected as the sample for this study.

Consistent with the approaches adopted in prior studies on IC disclosure (see Guthrie and Petty, 2000; Brennan, 2001; Bontis, 2003; Bozzolan *et al.*, 2003), this study used the content analysis approach to examine the trend and pattern of IC disclosure practices in annual reports of the public listed companies. Annual reports are frequently used in information disclosure studies because the reports are regularly available and prepared by management to convey management's policies and activities to various stakeholders. Annual reports are regarded as an important source of corporate information as they are often used to disseminate concerns and interests of corporate management to the investing public and these regularly produced reports facilitate a comparative analysis of management attitudes and policies across reporting periods (Abeysekera and Guthrie, 2003). For this study, the 2004, 2005 and 2006 annual reports of the selected companies were downloaded from the Bursa Malaysia's website for content analysis.

In order to maintain reliability in the content analysis, two coders were involved in coding the IC disclosure based on a pre-determined coding system. Any discrepancy in the measurement of a particular attribute was resolved by comparing the coding sheets and review of the particular attribute disclosure in the annual report based on the location stated in the coding sheet. The final agreed score would be used for subsequent analysis.

The IC disclosure was categorized into three types: qualitative disclosure (narrative description), quantitative disclosure (numeric description) and monetary disclosure (measurement in RM). Sentences are used as the unit measurement because sentences are easily identified in whole and sentences are preferred when the task is inferring meaning (Gray *et al.*, 1995). The extent of disclosure was measured by sentence count and by an IC disclosure index. The IC disclosure index was based on a four-way numerical scoring system as used in Guthrie and Petty (2000) and the scoring system is as follows: -

- 0 point for non-disclosure of an IC attribute;
- 1 point for narrative disclosure of an IC attribute ;
- 2 points for numeric disclosure of an IC attribute;
- 3 points for monetary measurement of an IC attribute disclosed.

4.2 Measurements of Variables

Corporate Size

Corporate size could be measured by total assets, total sales and market capitalization (Hackston and Milne, 1996). Total assets may not be a good measure simply because different companies may have acquired the assets in different periods of time and hence their assets may not be comparable due to effect of inflation. Annual sales or turnover could be an accounting measure of size, but this study used market capitalization as the proxy measure of size because corporate visibility tends to be associated with market capitalization.

Corporate Performance

Corporate performance is often gauged by various accounting profitability measures, such as the operating profit margin, net profit margin, returns on assets (ROA) and return on equity (ROE). In this study, ROE was used as a proxy measure of corporate performance in view of the current focus on the investors' perspective of the voluntary IC disclosure in the annual report.

IC Attributes

IC is categorized based on Sveiby's (1997) IC framework that classifies IC into internal structural (or organizational) capital, external relationship (or customer) capital and human capital. Mandatory disclosure of intangibles under FRS 138, such as intellectual property, copyrights, patents, trademark and goodwill were excluded in the measurement of the extent of voluntary IC disclosure in this study. The IC attributes examined in this study are based on Guthrie and Petty (2000) as presented in Table 1 below.

Table 1: Attributes of Intellectual Capital

Structural Capital
<ol style="list-style-type: none">1. Management philosophy2. Corporate culture3. Management processes4. Information process5. Networking systems6. Financial relations
Relational Capital
<ol style="list-style-type: none">7. Brands8. Customers9. Customer loyalty10. Company names11. Distribution channels12. Business collaborations13. Favourable contracts14. Licensing agreements15. Franchising agreements
Human Capital
<ol style="list-style-type: none">16. Know-how17. Education18. Vocational qualification19. Work related knowledge20. Work related competencies21. Entrepreneurial spirit

5.0 RESULTS AND DISCUSSIONS

5.1 Descriptive statistics

Table 2 presents the descriptive statistics of the corporate variables and the extent of IC disclosure. There were 29 companies from the services sector and 31 companies from the non-services sector. The mean return on equity for the sample declined slightly from 19.20% in 2004 to 16.30% in 2006.

The two measures of IC disclosure, sentence count and the IC disclosure index, indicate a gradual upward trend in the extent of IC disclosure among the public-listed companies from 2004 to 2006. The extent of IC disclosure in annual reports, as measured by the sentence count, increased from about 29 IC-related sentences in 2004 to about 43 sentences in 2006. On average, there is an approximately 20% increase in either of the IC disclosure measures annually from 2004 to 2006, except for IC disclosure on human capital attributes. The increase in relational capital attributes is the highest, followed by the structural capital attributes, and the human capital attributes disclosure shows the least improvement. The high percentages computed for human capital disclosure for the period 2004 to 2005 are due to the low base value in 2004.

Table 2: Descriptive Statistics

	2004	2005	2006
Industry Sector:			
Service companies	29	29	29
Non-service companies	31	31	31
Corporate Performance:			
Return on equity (ROE)	19.20%	16.75%	16.30%
Structural capital (SC):			
Sentence count	11.55	13.87 (+20.08%)	16.98 (+22.42%)
IC disclosure index	12.42	15.13 (+21.82%)	18.02 (+19.10%)
Relational capital (RC):			
Sentence count	13.05	15.78 (+20.92%)	20.23 (+28.20%)
IC disclosure index	16.18	19.62 (+21.26%)	25.25 (+28.70%)
Human capital (HC):			
Sentence count	4.18	5.85 (+39.95%)	5.95 (+1.71%)
IC disclosure index	4.63	6.35 (+37.15%)	6.50 (+2.36%)
Overall Mean:			
Sentence count	28.78	35.50 (+23.35%)	43.17 (+21.60%)
IC disclosure index	33.23	41.10 (+23.68%)	49.77 (+21.09%)

5.2 Trends and Patterns of IC Disclosure

For analyses of the trends of IC disclosure among the sample companies, paired sample tests were used to examine the significant differences in IC disclosure in the two 1-year periods, i.e., 2004 to 2005 and 2005 to 2006 and one 2- year period, 2004 to 2006 . Table 3 summarizes the results of paired samples test on the extent of IC disclosure for the periods examined. The increased IC disclosure from 2004 to 2005 is not significant, but the increase becomes significantly evident from 2005 to 2006, as indicated by the significant paired samples t-statistics ($p < 0.05$) for both the overall sentence count and the overall IC disclosure index for the 2005 to 2006 period. For the increase in the individual IC component disclosure, only the relational capital component shows a significant increase ($p < 0.01$) in disclosure from 2005 to 2006, while the structural capital component shows only a moderate increase ($p < 0.10$) for the sentence count disclosure measure from 2005 to 2006, but not for the IC disclosure index measure. The increase in human capital disclosure from 2005 to 2006 is not significantly different for both the IC disclosure measures.

The increases in IC disclosure for both the IC disclosure measures are significantly higher for the period 2004 to 2006 ($p < 0.01$). Once again, the most significant increases are found in the disclosure of relational capital attributes, followed by the structural capital disclosure. The increase in disclosure of human capital attributes is only marginally significant between 2004 and 2006. Further analysis of the pattern or type of disclosure reveals that only the extent of narrative disclosure of IC is increasing ($p < 0.05$ for 2005-2006 and $p < 0.01$ for 2004-2006), while numeric disclosure of IC has only marginally increased from 2004 to 2006 ($p < .10$) and there is no significant increase in IC disclosure in monetary terms.

Table 3: Results of Paired Samples Test on Extent of IC Disclosure

	Sentence Count		IC Disclosure Index	
	t	Sig (2-tailed)	t	Sig (2-tailed)
Structure Capital:				
SC04-SC05	-1.265	.211	-1.310	.195
SC05-SC06	-1.788	.079*	-1.476	.145
SC04-SC06	-1.467	0.008***	-2.449	.017**
Relational Capital:				
RC04-RC05	-1.189	.239	-1.145	.257
RC05-RC06	-2.744	.008***	-2.899	.005***
RC04-RC06	-3.783	.000***	-3.710	.000***
Human Capital:				
HC04-HC05	-1.338	.186	-1.259	.213
HC05-HC06	-0.097	.923	-0.139	.890
HC04-HC06	-1.894	.063*	-1.837	.071*
Overall 04-Overall 05	-1.356	.180	-1.332	.188
Overall 05-Overall 06	-2.060	.044**	-2.123	.038**
Overall 04-Overall 06	-3.355	.001***	-3.179	.002***

*** Sig. at 0.01

** Sig. at 0.05

* Sig. at 0.10

Table 4 shows the extent and type of IC disclosure as measured by sentence count. Similar to the findings of Guthrie and Petty (2000), Bozzolan *et al.* (2003), and Goh and Lim (2004) attributes in the relational capital category are most extensively reported, followed by those in the structural capital category and attributes in the human capital category are least reported. However, the extent of disclosure of human capital attributes in these three earlier studies was higher than that found in this study. The disclosure of the human capital component constituted about 30% of the total IC disclosure in the Australian study (Guthrie and Petty, 2000) and slightly more than 20% in the Italian study (Bozzolan *et al.*, 2003) and the earlier Malaysian study (Goh and Lim, 2004). In this study, human capital disclosure only constituted about 15% of total IC disclosure. As shown in Table 4, the findings of this study also concur with those of the earlier studies that the most frequently used format for IC disclosure is narrative description and companies rarely report their IC attributes in quantitative or monetary terms.

Table 4: IC Disclosure Measured by Sentence Count

	2004	2005	2006
Structural Capital:			
Narrative	660	781	972
Numeric	14	26	32
Monetary value	19	25	15
	693 (40%)	832 (39%)	1,019 (39%)
Relational Capital:			
Narrative	624	738	953
Numeric	130	188	221
Monetary value	29	21	40
	783 (45%)	947 (45%)	1,214 (47%)
Human Capital:			
Narrative	229	325	328
Numeric	17	22	25
Monetary value	5	4	4
	251 (15%)	351 (16%)	357 (14%)
Grand Total	1,727 (100%)	2,130 (100%)	2,590 (100%)

The two most frequently reported IC attributes within each IC category are given in Table 5 below. For the structural capital category, management processes and management philosophy are most extensively reported in all the three years. For the relational capital category, company name and customers are the top reporting items in 2004 and 2006. Company name and business collaborations are the most frequently mentioned relational capital attributes in 2005. The pattern of most reported attributes in the structural capital and relational capital categories corresponded fairly closely to the patterns reported in the Sri Lankan study by Abeysekera and Guthrie (2005). For the human capital category, education and know how are the most reported items in all the three years.

Table 5: Most Frequently Reported IC Attributes

IC Category	Most Frequently IC Attributes		
	2004	2005	2006
Structural Capital	1. Management processes 2. Management philosophy	1. Management processes 2. Management philosophy	1. Management processes 2. Management philosophy
Relational Capital	1. Company name 2. Customers	1. Company name 2. Business collaborations	1. Company name 2. Customers
Human Capital	1. Education 2. Know how	1. Education 2. Know how	1. Education 2. Know how

5.3 Effects of Size, Industry Sector and Profitability on Intellectual Capital Disclosure

The regression results of the extent of IC disclosure on size, industry sector and profitability are summarized in Table 6. Consistently, size and industry sector have significant positive effects on both the measures of IC disclosure, sentence count and IC disclosure index, in all the three years. Among the three years, the effects are most evident in 2006, where the levels of significance for size and sector are ≤ 0.05 . Profitability, however, is found to have no significant effect on both the measures of IC disclosure¹. Hypotheses 1 and 2 are consistently supported for the three years, but hypothesis 3 is not.

¹ In attempting to test for lag effect, ROE for 2006 was regressed on IC disclosure in 2004. The relationship is also not significant.

Table 6: Results of regression analyses of size, industry sector and profitability on extent of IC Disclosure

Dependent variable	Sentence Count				IC Disclosure Index			
	B	SE	t	Sig.	B	SE	t	Sig.
Year 2004:								
Constant	47.78	11.37	4.20	.00	57.85	12.88	4.49	.00
Size	-18.16	6.14	-2.96	.01	-22.46	6.95	-3.23	.00
Sector	11.11	.59	1.89	.06	13.37	6.67	2.01	.05
ROE	.16	.10	1.58	.12	.14	.12	1.20	.23
$R^2=.313$; Adj $R^2=.275$; $F=8.196$; $p=.000$					$R^2=.323$; Adj $R^2=.285$; $F=8.572$; $p=.000$			
Year 2005:								
Constant	52.46	22.64	2.32	.02	63.39	27.36	2.32	.02
Size	-20.91	12.65	-1.65	.10	-26.30	15.26	-1.72	.09
Sector	25.44	12.70	2.00	.05	30.24	15.34	1.97	.05
ROE	.16	.23	.71	.48	.18	.28	.64	.52
$R^2=.147$; Adj $R^2=.10$; $F=3.114$; $p=.034$					$R^2=.149$; Adj $R^2=.102$; $F=3.149$; $p=.032$			
Year 2006:								
Constant	65.35	19.45	3.36	.00	78.06	25.23	3.09	.00
Size	-22.79	10.45	-2.25	.03	-28.81	13.16	-2.19	.03
Sector	20.83	9.86	2.11	.04	25.56	12.79	2.00	.05
ROE	.15	.26	.59	.56	.19	.33	.56	.57
$R^2=.214$; Adj $R^2=.17$; $F=4.894$; $p=.004$					$R^2=.201$; Adj $R^2=.157$; $F=4.526$; $p=.007$			

The larger and more visible companies, as well as the service-based companies tend to disclose more IC information. However, this study found no significant relationship between profitability and IC disclosure. According to Core (2001), the voluntary disclosure policy of a firm is a consequence of a trade-off between lower cost of capital and higher litigation costs and proprietary costs. The lack of a significant relationship between IC disclosure and the profitability of firm may be due to the concern of the highly profitable companies of revealing their proprietary information. This argument is consistent with the studies by Depoers (2000) and Vergauwen and Alem (2005) which concluded that many firms instinctively resist disclosure of their IC to maintain confidentiality and protect their strategic advantage. Williams (2001) and Sonnier *et al.* (2007) found an inverse relationship between IC disclosure and performance. Williams (2001) argues that there are potential costs associated with IC disclosure and he opines that once a firm reaches a certain level of performance, it may reduce

IC information disclosure to conceal strategic important information from its competitors in an effort to sustain its competitive advantage.

Further analyses of the differences in disclosure of the three IC components reveal significant differences in the extent of disclosure of the structural capital and relational capital components between companies in the top 30 and those in the bottom 30 for all the three years. Differences in IC reporting of the human capital component between companies in the top 30 and those in the bottom 30 were only marginally significant in 2006. The significant differences in IC disclosure between the finance and services sector and the other manufacturing-related sectors are most evident for the relational capital component with the significant level at < 0.01 in all the three years. Differences in disclosure of structural capital component and the human capital component between the finance and services sector and the other manufacturing-related sectors are marginally significant or not significant at all for the time horizon examined.

6.0 CONCLUSION AND IMPLICATIONS

Unlike social and environmental reporting, which is reactive reporting by firms in response to external pressure groups, IC disclosure, on the other hand, is more proactive reporting because it is the management initiative to voluntarily reveal information on their “hidden” corporate assets. The results of this study indicate that such proactive reporting of IC information is not wide spread over the 3-year period. However, the growing trend of IC disclosure from 2004 to 2006 suggests a growing awareness among public-listed companies of the need to convey their IC to the external stakeholders to reduce information asymmetry and to improve their security valuation. However, the lack of quantitative measures (in units or monetary terms) may also suggest the general reluctance of these companies to reveal “too much” that may “erode” their competitive advantage. As reported in the earlier studies on IC disclosure, there is no consistent format for IC information disclosure and hence, comparison of the presence of such intangibles in various companies is difficult.

The low level of disclosure related to the human capital component is a serious concern for the nation which is striving hard to achieve the advanced nation status. Despite the earlier call for more intensive human capital development which is now one of the key pillars in the New Economic Model (NEM), the proportion of IC disclosure relating to human capital development, that may be a proxy measure of the intensity of human development efforts in companies, is rather discouraging. Even though the large (top 30) companies disclosed significantly more structural capital and relational capital information than the small (bottom 30) companies, but the difference in human capital disclosure between the large and the small companies was only marginally significant. New incentives and regulatory measures may be needed to encourage greater human capital development initiatives. More proactive reporting or voluntary disclosure should be encouraged to improve quality of disclosure by public-listed companies to external stakeholders to enhance transparency, accountability and improve market efficiency.

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8.0 AUTHORS

Professor Dr. Foong Soon Yau is currently an accounting professor at the Graduate School of Management, Universiti Putra Malaysia. She obtained her BS. (Econ) (2nd Upper) from the London School of Economics, MBA from Universiti Malaya and PhD (Information Systems) from the University of New South Wales, Australia. She is also a Fellow member of the Institute of Chartered Accountants in England and Wales and a member of the Malaysian Institute of Accountants. Professor Dr. Foong has published research papers in a number of international and national refereed academic journals, as well as professional journals. In addition, she has presented her research in numerous national and international conferences. Her research interests include intellectual capital measurement and reporting, knowledge management, as well as management accounting and corporate governance issues.

Mr Loo Sin Chun is currently an associate professor at Open University Malaysia. Previously, he was attached to the Faculty of Economics & Management at Universiti Putra Malaysia.

CONSOLATION PRIZE

**Understanding of Jones' Moral Intensity Construct: Ethical
Decision Making for Public Accountants**

Ms Razana Juhaida Johari

Associate Professor Dr. Zuraidah Mohd Sanusi

Professor Dr. Rashidah Abdul Rahman

Professor Dr. Normah Omar

ABSTRACT

A continuity of corporate scandals has made the public less confident of the auditor's credibility in the ethical decision-making process. The auditors claimed to be involved in unethical behaviours and have not honoured what the public has perceived to be their appropriate role. Contrary to previous discussions, this article provides a further understanding of the auditor's ethical decision making process through the lens of the moral intensity construct. The Issue-contingent model developed by Jones in 1991, suggests that the characteristics of an ethical issue component (moral intensity) significantly impact all stages of the ethical decision making process. The moral intensity construct is comprised of six components (i.e. magnitude of consequences, social consensus, temporal immediacy, proximity, probability of effect and concentration of effect) that help to describe the characteristics of a moral issue. This paper clarifies the concept and issues of the Issue-contingent model (Jones, 1991) and demonstrates the model's relevancy to accounting ethics.

1.0 INTRODUCTION

Global corporate scandals such as the Lehman Brothers, Enron and World.Com abroad and a series of financial irregularities in Malaysia such as Oilcorp Berhad and Transmile Berhad, have negatively affected the auditing profession. It is found that for each of the corporate failure cases, a part of the values of integrity and accountability of the companies' top management, the auditor's ethical responsibilities are being questioned by the public (Cullinan, 2004; Kane 2004). The conflicts of interest among the client, the public, the audit firm and the auditing profession provide the base for many of the potential ethical issues that auditors must resolve within their profession. Internationally, numerous legal/federal laws such as Sarbanes-Oxley Act and ethical codes of conduct were established to minimize the conflicts of interest and reduce the ambiguity that surrounds ethical issues within the profession. However, the continuing corporate scandals indicate that the auditors continue to make questionable professional judgements and are involved in unethical behaviour. The Arthur Andersen – Enron scandal represents an example of complex judgements that include ethical and financial repercussions.

The consequences arising from unethical behaviours are great and not only costly in terms of lost dollars, but can be devastating in terms of shattered and lost lives (for example the debacle of Enron). Consequently, the impact of unethical behaviours is not only on the organizations but to the public at large. In order to prevent the costly consequences of unethical behavior, it is imperative to prevent unethical behavior. To do this, we must first understand how it is caused and how to improve it through the process of ethical decision making. In an effort to understand the determinants of ethical decision making, a major focus in the business ethics literature has been on the formulation of ethical decision making models (e.g. Ferrell and Gresham, 1985; Hunt and Vitell, 1986; Rest, 1986 and Trevino, 1986). The models have been developed to illustrate the ethical decision making process which involves personal and situational characteristics. In 1991, Jones highlighted the importance of the ethical issue components on the ethical decision making process. He argued that without considering the influence of the ethical issue components, each previous model suggests that the ethical decision making process is identical for all moral issues. As a result, by using Rest's (1986) model, Jones developed an Issue-contingent model to better understand the effects of moral issues on the ethical decision making process. Therefore, the purpose of this paper is to clarify the concept and issues of the Jones' (1991) Issue-contingent model and to demonstrate the model's relevancy to accounting ethics research.

2.0 DEVELOPMENT OF JONES' MORAL INTENSITY CONSTRUCTS

The new model (i.e. Jones' (1991) Issue-contingent model) includes a new construct that Jones labeled as 'moral intensity', consisting of six components of the moral issue to facilitate the ethical decision making process.

2.1 Definition

The moral intensity construct in Jones' (1991) Issue-contingent model refers to "the extent or degree of issue-related moral imperative in a situation". This construct is added to Rest's (1986) model to consolidate the prior ethical decision making models. The moral intensity is multidimensional, consisting of six issue contingencies i.e. magnitude of consequences, social consensus, temporal immediacy, proximity, probability of effect and concentration of effect (Jones, 1991). These components of the moral issue are thought to increase or decrease the moral imperative inherent in a situation. For example if an action is perceived to cause serious consequences, it should be more "morally intense" than an action with less serious consequences. Together with the model, Jones (1991) offered the following key definitions:

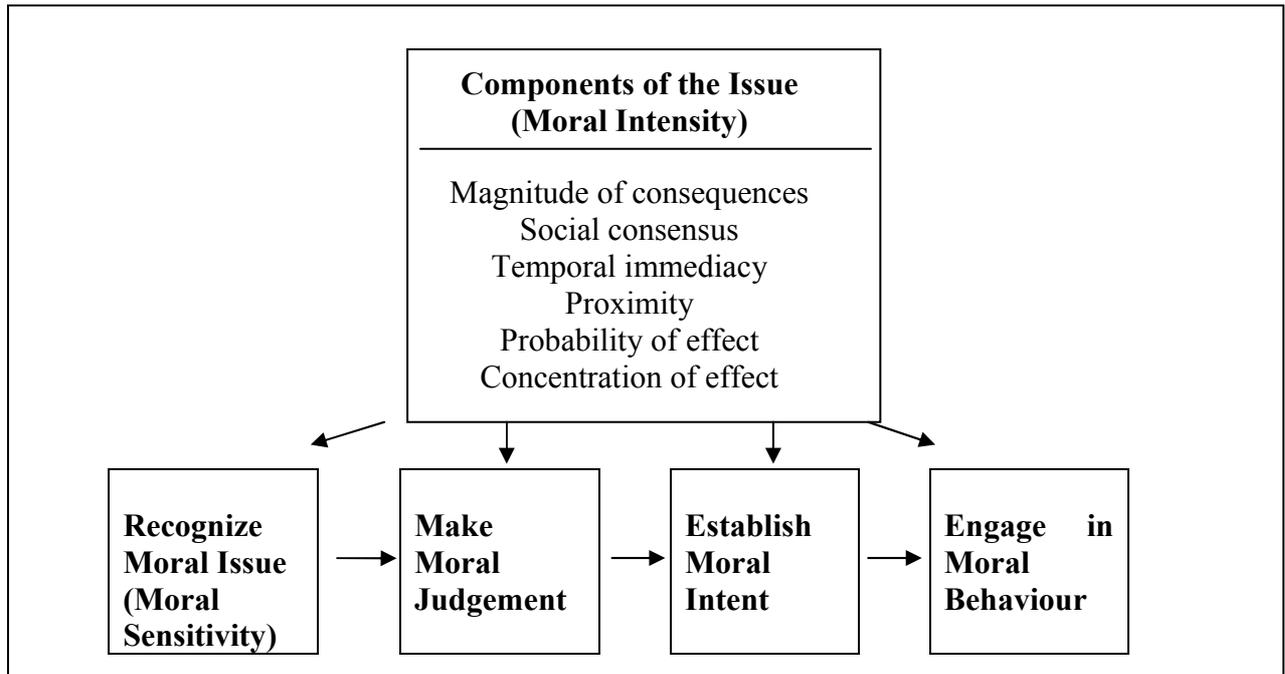
- (1) A moral issue is present where a person's actions, when freely performed, may harm or

benefit others; (2) A moral agent is a person who makes a moral decision, even though he or she may not recognize that moral issues are at stake. This feature of the definition is important because a central element of the Issue-Contingent Model recognizes moral issues; (3) An ethical decision is a decision that is both legal and morally acceptable to the larger community; and (4) An unethical decision is either illegal or morally unacceptable to the larger community.

2.2 The Framework

As mentioned earlier, the foundation of Jones' (1991) Issue-contingent model (Figure 1) is Rest's (1986) model. Rest (1986) has specified four distinct sequential processes of ethical decision making. The process is initiated with the first stage, recognition of moral issues (moral sensitivity) which represents the stage in which one recognizes that a situation presents an ethical dilemma. The second stage, moral judgement, represents the stage in which one uses a variety of strategies to determine which course of actions are morally right or wrong. The third stage, moral intention, represents the stage in which one decides to behave in an ethical or unethical manner. And finally, the fourth stage, moral behavior, represents the stage in which one engages in ethical or unethical action. Jones (1991) posited that the components of the moral issue, significantly impact the process of ethical decision making. He argued that the moral intensity of an issue would influence the recognition of an issue as an ethical problem and the subsequent behaviour of the decision maker.

Prior to Jones' (1991) Issue-contingent model, there have been many models proposed to explain ethical decision making within the context of business ethics (e.g. Ferrell and Gresham, 1985; Hunt and Vitell, 1986; Rest, 1986 and Trevino, 1986). These models included a variety of individual (e.g. cognitive moral development, locus of control and ethical philosophy) and situational/organizational/cultural characteristics (e.g. managerial influences, referent others and competition) but none included variables related to the issue itself. Jones (1991) noted that by neglecting the influence of the components of the ethical issue, previous models only suggested the same course of process for any dilemma faced by the individuals. For example, he claimed that there is no difference in making an ethical decision for a dilemma involving the theft of a few supplies from the organization and a dilemma involving the release of a dangerous product to market.



Source: Jones' (1991) Issue-contingent Model

Figure 1: Jones' (1991) Issue-contingent Model

Since moral problems do not all bring out the same response, Jones argued that investigating the components of ethical issues will clarify the ethical decision making process. By investigating the components of the issue, researchers can learn more on what triggers individuals to pay attention to certain ethical problems and ignore other ethical problems. In addition, prior ethical decision making models are not normative models of what one ought to do when faced with an ethical dilemma but are, rather, models of what the authors believe one does when faced with an ethical dilemma (Trevino and Nelson, 2004).

2.3 Moral intensity components

The Jones' (1991) Issue-contingent model comprises of six moral intensity components i.e. magnitude of consequences, social consensus, probability of effect, temporal immediacy, proximity and concentration of effect. Figure 2 explains the six components of the moral intensity construct.

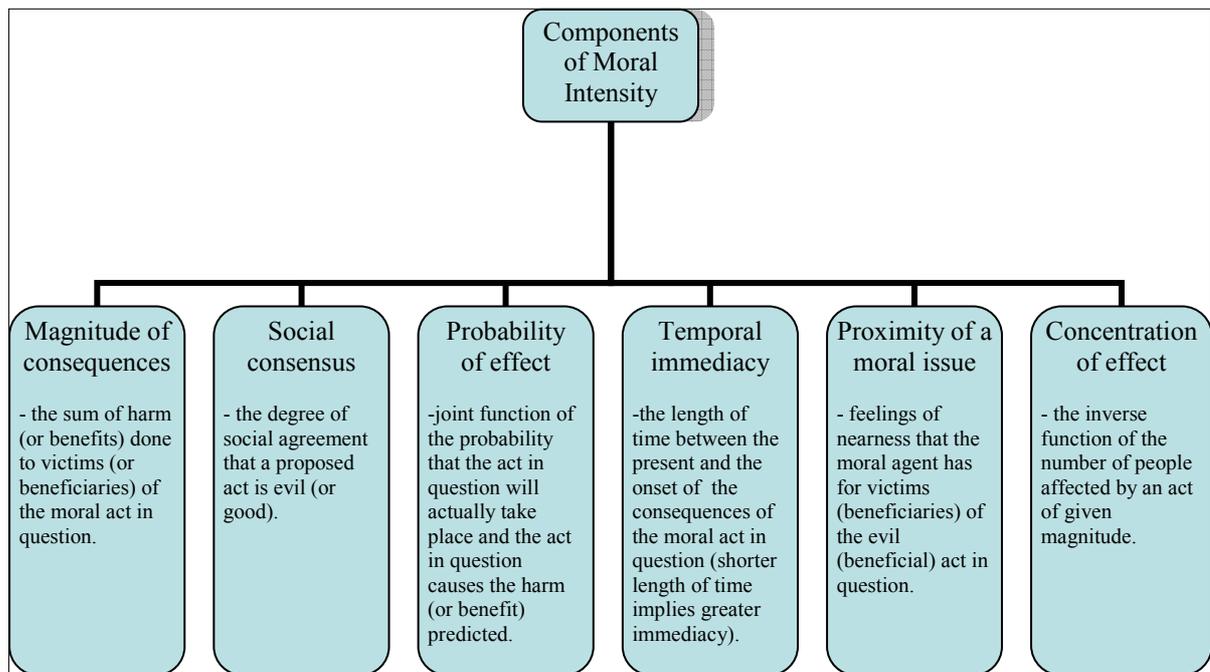


Figure 2: Components of Moral Intensity (Jones, 1991)

The first component, magnitude of consequences of moral intensity increases as the amount of harm increases. According to Bird and Gandz (1991), people are more motivated to respond to ethical issues if the issues have serious consequences on a large number of people. The second, social consensus involves the degree of social agreement that the greater the agreement that an act is wrong, the greater the moral intensity. Individuals in a social group or culture may share values and standards, which influence their perception of the goodness of various behaviours. However, these values and standards vary across cultures. People’s action is often kept within the established conventions set by social norms, principles and habits (Bird and Gandz, 1991). The third, probability of effect of an act will actually take place and the act in question causes the harm (or benefit) predicted (Jones, 1991). The greater the likelihood of the act taking place and causing harm, the greater the moral intensity.

The fourth, temporal immediacy is involved in such a way that the shorter the time length between the act and the resultant consequences, the greater the moral intensity. Jones (1991) argued that future consequences of events would be discounted. If the impact of an issue is discounted, the issue may not be readily recognized as a moral issue. The fifth, proximity of a moral issue of moral intensity increases as closeness increases. There are four aspects of proximity namely social, cultural, psychological and physical. People show more concern and care for family members and friends (people whom they feel close to) than they do for strangers. People are motivated to respond to ethical issues to the extent that the issues personally affect them (Bird and Gandz, 1991). Lastly, concentration of effect refers to “the

inverse function of the number of people affected by an act of given magnitude” (Jones, 1991). For example, an act that causes \$100,000 in harm that affects 100 people and each person incurs \$1,000 of damage, is of greater moral intensity than an act that causes the same \$100,000 in harm, but instead affects 100,000 people and each person incurs \$1 of damage. In addition, an act that causes harm to an individual is of greater moral intensity than an act that causes harm to a corporation (Jones, 1991).

3.0 EARLIER RESEARCH ON JONES’ MORAL INTENSITY CONSTRUCT AND ETHICAL DECISION MAKING PROCESS

Initial empirical studies indicate that moral intensity constructs influence ethical decisions on various business and marketing-related dilemmas (Barnett, 2001; Singhapakdi et al., 1996, 1999). Since its introduction in 1991, the construct of moral intensity has been the subject of several published research studies. Studies examining the moral intensity construct have investigated the dimensions of moral intensity (e.g. McMahon and Harvey, 2006; Singhapakdi, Vitelle and Kraft, 1996) and have also examined the relationship between the moral intensity components and the ethical decision-making process i.e. ethical sensitivity, ethical judgment/evaluation and ethical intentions (e.g. Barnett and Valentine, 2004; May and Pauli, 2002; Singhapakdi, et al., 1996).

Jones and Huber (1992) conducted the first empirical study on the effect of moral intensity components on ethical judgment. One scenario was used in which five of the six components were manipulated (magnitude of consequences, social consensus, temporal immediacy, proximity, and concentration of effect). The study found social consensus to be the only significant predictor. In reference to the researches done on ethical sensitivity, researchers have found that high social consensus surrounding an ethical issue positively influences ethical sensitivity (Barnett and Valentine, 2004; Butterfield, et al., 2000; Chia and Mee, 2000; May and Pauli, 2002; Singhapakdi, et al., 1996).

In 1995, Morris and McDonald used a student sample to study the effects of moral intensity on the dimensions of moral intensity and moral judgment. They utilized three scenarios where all six moral intensity components were manipulated (two per scenario), and one item was used to measure ethical judgment. Perceived moral intensity, measured by one item for each component, was the predictor variable. Their results showed that a part of the social consensus, the perceived magnitude of consequences consistently influenced moral judgment. In addition, several researches were done on ethical sensitivity which found a positive

association with magnitude of consequences (Barnett and Valentine, 2004; May and Pauli, 2002; Singhapakdi, et al., 1996; Leitsch, 2004, 2006).

There are only a few studies which examined all the six dimensions of perceived moral intensity on the ethical decision making process. For example, Singhapakdi et al., (1996)'s survey of marketing professionals showed that all the six dimensions of perceived moral intensity influenced moral judgment and intention. In another study, Wright, Cullinan and Bline (1998) provided a significant result of the interacting effect between moral intensity and ethical sensitivity on ethical issue recognition. May and Pauli (2002) contributed to the literature when their study found that the probability of negative consequences is positively associated with ethical issue recognition. This finding has supported the previous findings of Singhapakdi et al., (1996) but not the results of Chia and Mee (2000).

In 2007, McMahon and Harvey made an overview of the studies done on moral intensity constructs and ethical judgment from the year 1992 to 2001. From their overview, social consensus seems to be the most robust of the six moral intensity components, having a significant effect in nine out of the eleven studies (i.e. 82%) in which it was examined. Whereas, in twelve studies, magnitude of consequences had a significant effect in six and showed some significance in one (significance varied by scenario) (i.e. 58%). Out of the eight studies, probability of effect had a significant effect in three (i.e. 38%) and showed some significance in two (significance varied by scenario). On the other hand, temporal immediacy was not significant in seven studies, but did show some significance in one study (significance varied by scenario). Similarly, proximity was also not significant in four studies, but did show some significance in two studies (significance varied by scenario). Finally, the last construct, concentration of effect was found significant in one out of the five studies (i.e. 20%).

However, in light of the problems and concerns that have generated interest in the accounting profession, an increased stream of academic research on accounting ethics has emerged thus providing the business ethics literature with some empirical studies concerning the accounting-related dilemmas. There are a few studies which examined Jones' (1991) Issue-contingent moral intensity construct on the ethical decision making process. For example, in 2004, Leitsch (2004) used accounting students in examining differences in the perceptions of the underlying components of moral issues on the specific steps of the ethical decision making process. The results suggested that student's perception of the moral intensity components as well as the various stages of the ethical decision making process was influenced by the type

and intensity of the moral issue. Cohen and Bennie (2006) investigated the validity and relevance of Jones' (1991) Issue-contingent model by using specific audit vignettes on a sample of audit partners and managers. In their study, they found that the contextual model developed by Jones does help to guide accounting ethics research by isolating the contingent factors that affect ethical decision making. Their results also suggested that the issue components differ across different accounting settings.

4.0 ISSUES ON JONES' MORAL INTENSITY CONSTRUCT

Since its inception, the practicality of Jones' (1991) Issue-contingent model has been observed and received various remarks from other researchers. A question that is debated within the literature is regarding the dimensionality of moral intensity. According to Jones (1991), moral intensity includes at least six components (i.e. magnitude of consequences, social consensus, probability of effect, proximity, temporal immediacy, and concentration of effect). Jones argues that the components are expected to have interactive effects. As a result, both the interactive effects of the six subcomponents and the dimensionality of the construct, impact the measurement of moral intensity. Jones (1991) contended that moral intensity is a multidimensional construct. However, the question of whether the moral intensity construct represents a multidimensional construct or a single construct remains open within the literature. Several researchers have examined the dimensions of the construct and have found both multidimensional construct and unitary construct.

Multidimensional construct has been found by May and Pauli (2002). Their study revealed that magnitude of consequences, probability of effect, proximity and temporal immediacy were highly correlated. As a result, they combined the components into a "probable magnitude of harm" scale. The other two components, social consensus and concentration of effect have been grouped under a different scale. Similarly, Singhapakdi et al. (1996) also proposed two dimensions of the moral intensity construct. The first dimension consisted of magnitude of consequences, probability of effect, temporal immediacy and concentration of effect which was labeled as the "perceived potential harm/no harm". The second dimension consisted of social consensus and proximity which was labeled as the "perceived social pressure" dimension. Both dimensions significantly influenced ethical perceptions or ethical sensitivity (Singhapakdi, et al., 1996). Recently, McMahon and Harvey (2006) performed two separate studies to investigate the correlation of the moral intensity components. Both studies revealed a three-factor structure. The three components i.e. magnitude of consequences, probability of effect and temporal immediacy loaded on the first factor, proximity loaded on

the second factor and social consensus loaded on the third factor. Concentration of effect was dropped from both studies because the questions used did not appear to adequately measure the component as theorized by Jones (1991).

In contrast, Frey (2000a) found that moral intensity was a unitary construct. Therefore, the six moral intensity components loaded on one factor. Likewise, studies within accounting ethics have measured moral intensity utilizing a unitary construct (Karcher, 1996; Wright, et al., 1998). For example, Karcher (1996) found support for the moral intensity construct by manipulating the wording within scenarios. Utilizing three levels of severity (i.e. base, moderate and severe), Karcher (1996) found that the severe or more intense scenarios produced statistically significant results compared to non-significant results based on the moderate scenarios. In a study investigating whether the moral intensity of an issue influences students' ethical awareness, Wright, Cullinan and Bline (1998) also found support for the unitary moral intensity construct. The researchers found that ethical recognition was based on a combination of the participants' sensitivity to ethical issues and the issue's moral intensity. Similar to Karcher (1996), Wright et al., measured moral intensity as a unitary construct by varying the severity level of the scenarios. Dreike and Moeckel's (1995) study on the ethical perceptions of audit seniors found that the participant's definition of "ethical" was influenced by both the perceived magnitude of consequences and the possibility of the impact on the financial statement. Thus, this study also lends support to the moral intensity and ethical sensitivity constructs.

From the literature, it is found that certain components of the moral intensity construct might have different impacts on different respondents under study. For example, Singer (1996) used two samples (i.e. managers and general public) in examining perceived moral intensity and ethical judgment. The results of the study revealed that social consensus was found to be the most impactful characteristic for managers, while the most impactful characteristic for the general public was magnitude of consequences. In order to confirm these findings, the author could manipulate the respective components in the scenario and observe whether the same results would appear for each of the samples under study.

Based on the above issues discussed, the differences that occurred regarding the composition of moral intensity dimensions may be due to the different types of samples and scenarios used in each of those studies. As noted, the selection of the scenarios used, in terms of intensity level, the number of moral intensity components studied and the numbers of scenarios used are subject to the researchers' convenience and limitations. Therefore, these factors might contribute to the differences in the dimensionality of the constructs. In addition, the manipulation of the moral intensity components in the scenario could provide a richer understanding towards the influence of each moral intensity component on the ethical decision making process.

5.0 THE RELEVANCE OF THE JONES' MORAL INTENSITY CONSTRUCT TO AUDITORS IN PERFORMING ETHICAL AUDIT JUDGEMENT DECISION MAKING

With regards to ethical audit judgement decision-making, the Jones' (1991) Issue-contingent model could be interpreted by referring to the audit process. As mentioned earlier, the model states that an individual needs to perform the four subsequent stages in order to behave ethically. For example, a situation where an auditor faces client pressure to agree using questionable accounting practices such as to recognize deferred payment in order to increase their revenue. In the first stage, he or she must recognize and perceive the existence of a moral problem in a situation. The auditor needs to recognize the effect of the decision to others and to agree or not agree to the client pressure. As for the second stage, once the auditor has recognized the existence of a moral problem in the situation, he or she needs to make a moral judgement from the available options. Here, the auditor needs to think of what should ideally be done (i.e., it is ethical or not to accept the client's pressure). Then, the third stage is the intention to behave morally. In this stage, the auditor needs to decide on what to do by balancing ethical values (e.g. public interest and upholding professional integrity) against other values (e.g. retention of the client, loss of audit fee) to establish moral intentions. Finally, the moral intention of the auditor will lead him or her to engage in moral behaviour by either agreeing to the client's pressure or requesting the client to make an appropriate adjustment.

Within the process, according to Jones (1991), each of the four stages is influenced by the moral intensity components, depending on the issues involved and the intensity level of the issues. By referring to the same example as above, the possible components that might influence the auditor's ethical decision making process are magnitude of consequences, probability of effect, proximity and concentration of effect. The component of magnitude of consequences for a given moral issue may vary depending on the circumstances but generally will be related to the materiality of the amount to be recognized as the deferred payment. Whereas, for the probability of effect, the type of factors that could impact this component are the level of reliance placed on the statements by the users and availability of alternative sources of information to users. As for the proximity effect, if the auditors have a close relationship to the client, the situation in the example is considered as a high proximity situation. This may result in the auditor's independence being compromised, as the auditor would be perceived to act in the client's best interest at the expense of the other users. Finally, the influence of the component of concentration of effect would be much greater if the client is a publicly listed company with a large number of shareholders rather than if the client is a private company.

The inclusion of the moral intensity components within the accounting ethics research have been offered by a few researchers such as Karcher, 1996; Leitsch, 2004, 2006; Cohen and Bennie, 2006; Sweeney and Costello, 2009. For example, Karcher (1996) found out the strong effect of ethical issues in her study. The propensity to mention the ethical issue differed significantly between issues (level of intensity) included in the study and subjects (auditor) were more apt to mention an ethical issue if the circumstances surrounding it were more severe. Karcher (1996) argued that in the case involving a possible conflict of interest, the possible components of moral intensity that might affect auditor's judgment are the magnitude of consequences and social consensus. Both of the components are likely to be greater in the severe case (i.e. one of the parties involved in the audited company is a "brother-in-law of the auditor) than in the moderate case (i.e. the person, is a "close personal friend"). A sample survey of auditors was also conducted by Cohen and Bennie (2006). The results of the study suggest that all of the six moral intensity components (magnitude of consequences, social consensus, probability of effect, temporal immediacy, proximity and concentration of effect) were considered important at each of the four stages of the ethical decision making process. The importance rating and ranking of the six moral intensity components across the four stages of the ethical decision making process was stable with magnitude of consequences considered the most important factor, followed by social consensus and probability of effect.

These results support the arguments made by Karcher (1996) regarding the possible components of moral intensity that affect auditor's judgement.

Alternatively, Leitsch (2004 and 2006) studies and Sweeney and Costello (2009) used accounting students in examining the impact of the moral intensity components on ethical decision making. The research results by Leitsch (2004) suggested that student's perception of the components of moral intensity as well as the various stages of the moral decision-making process was influenced by the type and intensity of the moral issue. Later, in 2006, Leitsch found out that the moral intensity components did not significantly predict moral sensitivity. However, when they were combined with moral sensitivity they did significantly predict the students' moral judgment. Likewise, moral judgment and the dimensions of moral intensity significantly predicted accounting students' moral intentions. A recent study conducted by Sweeney and Costello (2009) has further supported the previous findings concerning the influence of the moral intensity of the situation on the ethical decision making process. In addition, in their study, social consensus emerged as the strongest moral intensity component related to the ethical decision making process. This is consistent with previous research, which suggested that, when dealing with student groups, social consensus was the most important component but, when dealing with manager groups, magnitude of consequences emerged as the most important component (Barnett and Valentine, 2004). The research findings presented above have extended current understanding of the influence of the moral intensity components on the moral decision-making process and provided the significance of Jones (1991) model to accounting ethics research.

6.0 CONCLUSIONS

The Jones' (1991) Issue-contingent model is based on Rest's (1986) four stages model by including the components of moral issues i.e. moral intensity constructs. The model complements the prior ethical decision-making models that examine organizational, environment and personal characteristics. Interestingly, these characteristics remain relevant even though they are viewed through the lens of the ethical issues characteristics. From the results of past studies, it is proven that the moral intensity constructs have contributed to the ethical decision-making literature in explaining how and why different individuals behave in different actions for certain dilemma although they belong to the same norms or culture. The perceptions towards the moral intensity of each individual are unique and as according to Jones (1991), there are certain properties within an ethical issue that make the issue more salient and vivid to the decision-maker. As a consequence, different individuals will pay different attention to certain problems because of the perceived severity of the problem.

This model is proven to be applicable and enlightens the ethical decision-making process not only in business ethics research but also in accounting ethics research. Since it provides better understanding on the decision-making processes utilized by an individual, it could assist in untangling the inherent element of the auditor's conflict of interest. In order to provide a robust result of the moral intensity constructs within the accounting premise, the actual research will be carried out to operationalize moral intensity by manipulating the moral intensity components in the scenarios and at the same time measuring participants' perception of moral intensity within the auditing environment. In addition, the moral intensity constructs will be investigated together with other individual and situational characteristics.

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8.0 AUTHORS

Ms Razana Juhaida Johari is a senior lecturer at the Faculty of Accountancy, Universiti Teknologi MARA (UiTM). She is a Member of the Malaysian Institute of Accountants. She obtained her Master of Accountancy from UiTM Shah Alam in 2000 after obtaining her Bachelor Degree (Honours) of Accountancy from Universiti Utara Malaysia in 1997. She has presented several papers in the area of auditing, professional ethics and social responsibility accounting in national and international conferences. Besides teaching, Ms Razana she also participated in various consultation projects with Telekom Malaysia Berhad and PERNAMA Sdn. Bhd.

Associate Professor Dr. Zuraidah Mohd Sanusi is an associate professor at the Faculty of Accountancy, UiTM and a research fellow at the Accounting Research Institute, UiTM. She holds a Doctorate in Business Administration (Accounting) from Universiti Kebangsaan Malaysia and Master of Science and Bachelor of Science degrees in Accounting from Syracuse University, New York, USA. Her main research interest is auditing, corporate reporting, corporate governance, management accounting and management. Dr. Zuraidah has presented a series of talks and workshops on data analysis, data interpretation and research methodology. She has published in a number of national and international journals. In addition to teaching, she supervises and advises Masters and Doctoral students.

Professor Dr. Rashidah Abdul Rahman, is the Deputy Director at the Accounting Research Institut, Universiti Teknologi MARA. With research interest in Islamic Finance, corporate governance, intellectual capital, financial reporting, and corporate ethics, she has presented and published various articles in these areas. She sits on the Editorial Board of several journals and has been an external examiner for post graduate students both at the local universities and abroad. Among her publications include books titled '*Corporate Governance in Malaysia*', '*Effective Corporate Governance*', '*CSR-Based Corporate Governance*' and '*Self Regulating Corporate Governance*'.

Professor Dr. Normah Omar is currently heading the Accounting Research Institute of UiTM as a Director. Previously she was the Head of the CIMA-UiTM Asian Management Accounting Research Centre (AMARC). Besides that, she is a founding member of the Asia Pacific Management Accounting Association, which is based in Japan.

She has completed many research projects with various organizations in Malaysia. She also conducts training and consultancy projects in the areas of accounting and finance in organizations such as Tenaga Nasional Berhad, Bank Simpanan Nasional, RTM, Jabatan Audit Negara, Jabatan Akauntan Negara, MIA, CIMA, Badan Pencegah Rasuah, RTM and Polis Diraja Malaysia.

As a spinoff of her research activities, Professor Dr. Normah has presented more than 150 conference and seminar papers at both the national and international levels. Within the last three years alone, she has published more than thirty articles in refereed journals nationally and internationally. Several of her papers have also been published as chapters in international books.

Professor Dr. Normah is an associate member of CPA Australia. She sits in the Organizing and Assessment Committees of NAfMA. She has been a NAfMA assessor since 2004.

The Ministry of Science and Innovation also recognizes Professor Dr. Normah as an expert panel for the Industry Grant Scheme. At the Ministry of Higher Education level, she sits in the Jaminan Kualiti for IPTA (JKIPTA) committee and had been identified by the ministry as one of the auditors for JKIPTA.

Professor Dr. Normah has been appointed as an editorial board member and reviewer of five internationally recognized refereed journals. To date, she has won more than twenty five innovation awards both at the national and international levels. Some of her products have been used and adopted by the industry and corporations in Malaysia.

In 2007, Professor Dr. Normah was awarded the title Researcher of the year or Tokoh Penyelidik UiTM.

CONSOLATION PRIZE

**TOP COMPANIES CORPORATE REPORTING OF
INTELLECTUAL CAPITAL INFORMATION: EVIDENCE
FROM DIFFERENT OWNERSHIP STRUCTURE**

Dr. Gan Kin

ABSTRACT

The objective of this study is to find out the nature and extent of Intellectual Capital (IC) related information disclosed in companies listed on the Bursa Malaysia Securities Berhad. The ownership structure examined was family-owned (FAMC), government-linked companies (GLC) and diffused ownership (OWNDIFF). Using content analysis, a longitudinal study was carried out from years 2006 to 2008 on 162 top companies listed on Bursa Malaysia. Results show increasing trend of IC information disclosed over the three years and that GLCs and OWNDIFFs voluntarily disclose more information on IC. In contrast, FAMC strictly adhere to their secrecy of not disclosing more details than those stipulated by law. Of the three components examined, human capital (HC) related information scored as the highest disclosure. This is testament to the corporations' commitment towards human capital development in supporting the country's quest towards achieving Vision 2020, whereby human capital is one of the prime movers. This study differs from prior IC disclosure studies in that it discusses voluntary disclosure from the agency as well as institutional theories in explaining ownership structure and voluntary disclosure of IC. This study may be of interest to the regulators as well as standard-setters in meeting the growing demand for intangible information to be incorporated in annual reports and facilitate further calls for them to speed up their efforts in producing guidelines for a more consistent IC reporting framework.

1.0 INTRODUCTION

Intellectual capital (IC) has attracted increasing interest in recent years as management recognizes the contribution it makes in their pursuit of competitive advantage (Fincham and Roslender, 2003). Pulic and Bornemann (1999) advocate that IC has become the one and only competitive advantage of a firm. Despite the fact that the concept of IC is at its infancy, its movement is rich in history. It was first popularized by Stewart (1991) in the *Fortune* magazine through the article 'Brain Power: How Intellectual Capital Is Becoming America's Most Valuable Asset'; it hit the business community like a storm. This article created a keen interest in IC for many, ranging from the academia, practitioners, corporations as well as governments. IC has since then become the highly sought after goal on the management agenda for years (Serenko and Bontis, 2004). The contributions from early thinkers such as Sveiby (1997) and Edvinsson (1997) have had a great impact on the significance of intangibles, in particular IC, which drive the competitive advantage of organizations.

What is IC? Mouritsen, Larsen, and Bukh (2001) refer to IC as intangible assets which create company value. Guthrie and Petty (2000) view IC as a company's 'softer' assets such as human resources, know-how, intellectual property rights, manufacturing procedures, organizational structure, internal and external relationships. The growing importance of IC as a source of wealth for an organization was emphasized by Stewart (1991); however, Roslender and Fincham (2004) opine that interest began to escalate only in the mid-1990s. European countries took the lead in IC, resulting in the publication of popular management books by Brooking (1996), Edvinsson and Malone (1997), Roos *et al.*, (1997). IC also gained the attention of investors, in that they are now moving beyond looking at just the tangible assets to look at IC related aspects before making their investment decisions (Garcia-Meca and Martinez, 2007). Holland and Johanson (2003) found that there is strong demand for and use of IC by fund managers and analysts. Thus Eustace (2000) and Financial Accounting Standards Board (FASB, 2001) urged that information on IC should be reported to the capital market. Guthrie and Petty (2000) argue that IC disclosure (ICD) is of greater importance now in comparison to the past due to the dominant industry sectors shifting from manufacturing to high technology, financial and industry services. This is evident by the fact that ICD is communicated to both internal and external stakeholders by combining a numbering visualization and narrative account of value creation (Mouritsen, Larsen, Bukh and Johansen, 2002).

Despite its significance, IC does not appear to have seeped into financial reporting systems. The greatest problem as argued by Starovic and Marr (2003) are; firstly, the historical nature, whereby accounting rules which were designed and incepted during the industrial age is still firmly rooted. The main source of wealth then was the prominent display of physical assets such as plant and machinery. Secondly, the nature of intangibles, such as creativity, which by itself is difficult to measure, except for some internally-generated intangibles such as patents, trademarks and goodwill. Finally, the “idiosyncratic nature of IC” as put forth by Starovic and Marr (2003, p.7) which stressed that ‘what is valuable for one company may be worthless for another, thus resulted in diverse measuring systems that make comparability across companies and sectors difficult’.

In Malaysia, besides the mandated information required by the regulatory body, corporations are also encouraged to voluntarily disclose relevant information in their annual reports. In retrospect, it will be insightful to see if companies in Malaysia do indeed ‘go the extra mile’ to employ good governance by way of incorporating information that is not required by law such as IC related ones in their annual reports. Stewart (2001) opines that in the knowledge-based economy characterised by technological advances, traditional financial reporting is not sufficient in meeting the information needs of stakeholders. As such, reporting as well as accounting for IC is voluntarily reported (Striukova, Unerman and Guthrie, 2008). This study aimed to find out whether companies are in tandem with their European counterparts in providing information relevant for investment decision making.

The paper is organized as follows. The next section outlines the methodology used in this study. This is followed by literature review on voluntary disclosure in Section 3.1, ownership structure and ICD studies in Section 3.2. Findings from the study are presented in Section 4, while Section 5 discusses the conclusion and implications of the study.

2.0 METHODOLOGY

This study uses content analysis in the investigation of voluntary disclosure of IC in the annual reports of Malaysian companies listed on Bursa Malaysia from the years 2006 to 2008. The original IC framework was derived from several pronouncements such as the International Federation of Accountants (IFAC) (1998) and the Society of Management Accountants of Canada (SMAC) (1998). After an extensive literature review and comparison, the final IC checklist is divided into three categories; Human Capital (HC), Structural Capital (SC) and Customer Capital (CC). These three categories are further divided into thirty- three IC items, with HC having 17 items, SC 7 items while CC has 9 items. The operational definition of the IC checklist is given in Appendix A. The total number of companies investigated was 162, comprising companies from the top 100 companies by way of market capitalization as at 31st December 2006, 2007 and 2008. The level of ICD is measured using a disclosure index. The total ICD Score is computed as follows:

$$ICDScore_j = \frac{\sum_{i=1}^{m_j} HCScore_i + SCScore_i + CCScore_i}{m_j}$$

The unit of analysis in this study was a sentence and the contents of the analysis were classified into three categories: quantitative with monetary; quantitative with numerical and qualitative with narrative. The scoring system was adopted from Guthrie and Petty (2000) where a score of 3 is given if the disclosure is in monetary value; a score of 2 is given if the disclosure is a numerical term, a score of 1 is given if it is in narrative form and a score of 0 is given if there is no disclosure in the annual report.

On the issue of validity in content analysis, Krippendorff (2004) stressed that reliability is necessary but insufficient in meeting validity criteria. In response, two independent coder independently coded reports chosen from the first fourteen companies listed alphabetically in the year 2006. Krippendorff (2004) advocates that as a test for reliability, Krippendorff's alpha is able to account for chance agreement among multiple coders. Hayes (2007) further stressed that the more coders agree on the data they generate, the greater the reliability. Results obtained from the computation of inter-coder reliability showed that Krippendorff's alpha of 77.1 percent was obtained. Similar to findings by Bozzolan *et al.*, (2006), the results were considered acceptable in content analysis. The remainder 148 annual reports were completed by a single coder, the researcher herself, in ensuring consistency in the scoring of the research instrument, similar to the approach by Li *et al.*, (2008).

3.0 LITERATURE REVIEW

3.1 Voluntary disclosure

Many studies have examined the relationship between corporate characteristics and disclosure in annual reports (Cooke, 1993; Raffournier, 1995; Hossain *et al.*, 1994; Hossain, Perrera and Abdul Rahman, 1995; Ahmed and Courtis, 1999; Chen and Jaggi, 2000; Haniffa and Cooke, 2002). According to Chavent *et al.*, (2006), corporations are motivated to disclose voluntary information in excess of the requirements ‘to reduce the firm’s agency and political costs’. In fact, according to Ahmed and Courtis (1999), since 1961, studies were carried out to investigate the association between corporate characteristics and disclosures.

The most common characteristics examined were size, profitability, leverage, listing status and type of auditor. The typical methodology adopted was by constructing country-relevant disclosure index in an attempt to examine the association between corporate characteristics and voluntary disclosure. A summary of the abundant literature on voluntary disclosure was covered by Chavent *et al.*, (2006), Ahmed and Courtis (1999) as well as Verecchia (2001). A meta-analysis of 29 disclosure studies conducted by Ahmed and Courtis (1999, p.40) found that there were ‘inconclusive evidence about the association between disclosure levels and (a) leverage, (b) profitability, and (c) size of audit firm’. On top of that, they also concluded that there were mixed results with regard to corporate size and listing status. Ahmed and Courtis (1999) reasoned that this could be due to differences in the socio-economic and political environment between countries, sampling error, differences in methodology adopted in these diverse studies. Studies on voluntary disclosure from the perspective of IC is scarce, as such this study is motivated to fill this gap.

3.2 Ownership structure and ICD studies

Malaysia, being an Asian country, has unique ownership structures which will offer insights on how different ownership structures influences the provision of voluntary information on IC. The ownership structures examined is family owned (FAMC), government-linked companies (GLCs) and widely held, also known as diffused ownership (OWNDIFF). GLCs are examined as they constitute a significant part of the economic structure in Malaysia and are deemed leaders of the corporate sector as well as key partners in the Government’s quest in achieving Vision 2020. Listed GLCs make up only 4% of the total number of listed companies but in terms of capitalisation they represent 49% in Bursa Malaysia employing more than 300,000 people (PCG, 2009). As stressed by the then Deputy Prime Minister of

Malaysia, Y.A.B Dato' Sri Mohd Najib bin Tun Haji Abdul Razak (2009), GLCs are “called on to develop new growth prospects; role-model good stewardship and governance; and move the corporate sector to a higher level of performance and merit”. Thus, their performance as well as its transparency in financial reporting behaviour plays a significant role model in working towards achieving Malaysia's Vision 2020. This study will provide insightful findings on the extent of transparency of GLCs and its influence on other corporations.

Ownership structures and its influence on voluntary disclosure practices are limited in Asian contexts (Chau and Gray, 2002 on Hong Kong and Singapore; Ho and Wong, 2001 on Hong Kong; Hossain *et al.*, 1994 and Haniffa and Cooke, 2002 on Malaysia). The motivation for voluntary disclosure in Singapore and Hong Kong is very much influenced by the form of ownership and management structure (Lam, Mok, Cheung, and Yam, 1994; Mok, Lam, and Cheung, 1992). Malaysia shares the same characteristics and close cultural proximity, and as such this study attempts to find out the nature and extent of voluntary disclosure of IC among different ownership structures. In this study, in categorizing the different types of ownership structure, the list of GLC is obtained from the Progress Review of Transformation Review (2006). Each annual report was initially examined to determine whether it falls under the GLC structure, if yes, it is coded as GLC. Follow-on, FAMC is ascertained by reading the directors' profile in order to find out whether there is any family member on the board. If yes, this company falls under the FAMC structure. The final ownership structure is OWNDIFF. Should the company in the sample not fall under either the GLC or FAMC structure, it will be classified as OWNDIFF.

Not much is known of empirical evidence on voluntary disclosures and ownership structures of Malaysian corporations except studies carried out by Hossain, Tan, and Adams (1994) and Haniffa and Cooke, (2002). Haniffa and Cooke (2002) found a significant association between the domination of family members on board and the voluntary disclosure of information. Hossain *et al.*, (1994) reported similar findings on ownership structures and voluntary disclosures. The following section provides the findings in this study in the provision of voluntary IC information in Malaysian companies.

4.0 FINDINGS

4.1 Descriptive statistics of IC disclosure among different ownership structures

Table 1
Descriptive statistics of ICD and its components for years 2006 to 2008 aggregated

All years	ICD	HC	SC	CC
FAMC	0.7381	0.3123	0.3049	0.1209
GLC	1.0120	0.3766	0.3980	0.23742
OWNDIFF	0.8756	0.3535	0.3492	0.17284

Table 1 above reports the findings on the disclosure of IC and its components among different ownership structures. On average, FAMC, GLC and OWNDIFF disclosed a mean value of 0.7381, 1.0120 and 0.8756 respectively. It is obvious that GLC is providing more voluntary information in comparison to FAMC and OWNDIFF. FAMC disclosed the least among the three. One explanation for the GLC providing more ICD could be due to its role as a corporate leader and its need to be a role model in providing voluntary information. Likewise, FAMC is not providing more than that stipulated by law. The same applies to the provision of the individual components of IC, namely HC, SC and CC as reflected in Table 1.

In order to provide further insights on the trends of information over the three years, Table 2 gives the detailed breakdown of the mean information disclosed by each different ownership structure. All the three different ownership structures reflect increasing trends in the practice of providing voluntary information on IC. For the aggregate disclosure of IC, FAMC disclosed on average 0.6821 in 2006, 0.7445 in 2007 and 0.7878 in 2008. GLC shows a greater increase from 0.9645 (2006) to 1.057 (2008). Similarly, OWNDIFF also reported an increasing trend in reporting ICD, from 0.8166 in 2006 to 0.9542 in 2008.

Out of the three individual components of IC, the most reported information by GLC is HC and SC, while CC is least reported. For instance in year 2008 alone, a mean disclosure of 0.3846 was reported on HC and 0.4103 was disclosed about SC with only 0.2621 information related to CC.

Table 2
Descriptive statistics of ICD and its components for each individual year

Ownership structure	ICD			HC			SC			CC		
	2008	2007	2006	2008	2007	2006	2008	2007	2006	2008	2007	2006
FAMC	0.7878	0.7445	0.6821	0.3375	0.3065	0.2931	0.3158	0.3133	0.2857	0.1345	0.1247	0.1033
GLC	1.0570	1.0147	0.9645	0.3846	0.3846	0.3605	0.4103	0.3993	0.3846	0.2621	0.2307	0.2194
OWNDIFF	0.9542	0.8559	0.8166	0.3948	0.3458	0.3200	0.3658	0.3485	0.3333	0.1936	0.1616	0.1633

The second ownership structure which appears to be catching up with GLC in providing more voluntary information is OWNDIFF. OWNDIFF shows a similar pattern as GLC in the practice of providing voluntary disclosure of IC related information. Despite showing the least voluntary information, FAMC appears to be reporting more voluntary information on ICD as well as its individual component over the years.

4.2 Descriptive analysis of IC information disclosed of Individual IC and ratings information disclosed

The individual item in each IC category; HC, SC and CC is as shown in Table 3 below. Total IC related information disclosed in monetary value (Score of 3) is scarce, as reflected under HC with a total score of 52, a total score of 3 for SC, and a total score of 9 for CC. In respect of HC, this implies 21 companies disclosed money spent on education and 17 companies provided information on amount spent on community projects. With regard to SC, only 1 company disclosed information on information systems (SC1) and 2 companies disclosed their networking system (SC6) in monetary value. While under CC, information on monetary value was shown in favourable contracts (CC4) and business collaboration (CC8).

Table 3
DISCLOSURE OF INDIVIDUAL IC IN EACH RATINGS CRITERION (POOLED DATA)

		Ratings/Criterion			
Human Capital (HC)		0	1	2	3
HC1	Education	12	101	28	21
HC2	Vocational qualification	79	68	13	2
HC3	Industrial relations	79	75	7	1
HC4	Union activity	129	31	1	1
HC5	Employee thanked	1	161	0	0
HC6	Employee featured	31	112	19	0
HC7	Employee involvement in the community	21	104	20	17
HC8	Training programs	30	102	27	3
HC9	Career planning and development program	48	94	16	4
HC10	Succession planning	57	94	10	1
HC11	Innovation	10	137	14	1
HC12	Race, gender, religion and disability issues	134	19	8	1
HC13	Employee safety and health	46	97	19	0
HC14	Know-how	0	158	4	0
HC15	Professional experience	0	4	158	0
HC16	Expert seniority	0	1	161	0
HC17	Senior executive performance and results	0	1	161	0
<i>Subtotal of HC different disclosure ratings</i>		677	1359	666	52

Structural Capital (SC)					
		21	137	4	0
SC1	Management Philosophy				
SC2	Corporate culture	24	137	1	0
SC3	Management processes	6	128	28	0
SC4	Quality/Achievements/Recognition	14	85	63	0
SC5	Information systems	7	145	9	1
SC6	Networking systems	22	133	5	2
SC7	Financial relations	1	141	20	0
<i>Subtotal of SC different disclosure ratings</i>		95	906	130	3
Customer Capital (CC)					
CC1	Brands	69	80	13	0
CC2	Customers	51	85	25	1
CC3	Company names	23	104	35	0
CC4	Favourable contracts	122	19	18	3
CC5	Market share	80	32	50	0
CC6	Distribution channels	90	53	18	1
CC7	Licensing agreements	135	16	11	0
CC8	Business Collaboration	38	95	26	3
CC9	Franchising agreements	149	12	0	1
<i>Subtotal of CC different disclosure ratings</i>		757	496	196	9

Note: A score of 3 means IC related information is in monetary value, while a score of 2 refers to a numerical term, a score of 1 when ICD is in narrative form, while zero score means no IC related information is provided.

IC information disclosed in numerical terms (the score of 2) has a more encouraging result. Under HC, almost all the companies disclosed professional experience (HC15), expert seniority (HC16) and senior executive performance results (HC17) in terms of years of experience and results achieved. This information is reflected in the profile of directors in the annual report. Under SC, 28 companies disclosed management processes (SC3) numerically while 63 companies disclosed their quality/achievements/recognition (SC4). With regards to CC, the only item scarcely disclosed is franchising agreements. Company names (CC3) tops the list of disclosure in the narrative form.

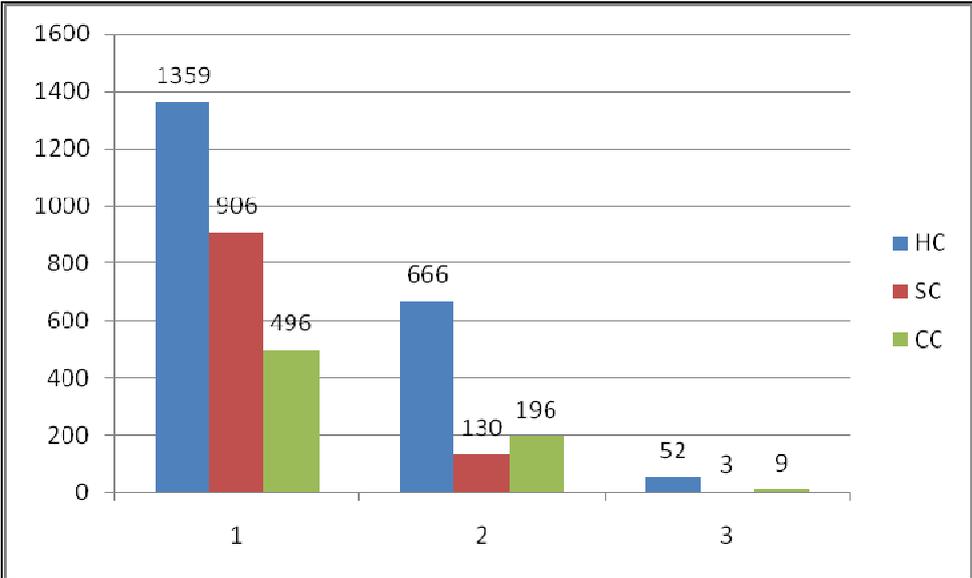


Figure 1
SUBTOTAL OF HC, SC AND CC DISCLOSURES

As shown in Figure 1, most disclosures of IC related information, HC, SC and CC were in narrative form, with a score of 1. HC recorded the highest subtotal score of 1359, followed by SC with a score of 906 and CC with a score of 496.

4.3 EXTENT OF ICD

The examination of the incidences of reporting of an individual element item is further discussed. Table 4 presents the relative popularity of specific IC items disclosed. The most disclosed items under HC are; education (HC1), employees thanked (HC5), employees' involvement in the community (HC7), training programs (HC8), and innovation (HC11). All companies in the sample disclosed these HC items; know-how (HC14), professional experience (HC15), expert seniority (HC16) and senior executive performance and results (HC17). This disclosure is not surprising, due to the fact that much emphasis has been placed on HC, particularly by GLCs.

The least disclosed item is union activity (HC4), followed by equity issues (HC 12), represented by race, gender, religion and disability issues. For the reporting of SC, practically all the companies provided information on this category, with 4% out of the total disclosure of IC in every single item in SC, being management philosophy, corporate culture, management processes, quality/achievement/recognition, information systems, networking systems and financial relations.

Table 4 - Extent of ICD

IC Items		IC Score	Extent of ICD (%)
Education	HC1	150	4
Vocational qualification	HC2	83	2
Industrial relations	HC3	83	2
Union activity	HC4	33	1
Employee thanked	HC5	161	4
Employee featured	HC6	131	3
Employee involvement in the community	HC7	141	4
Training programs	HC8	132	3
Career planning and development program	HC9	114	3
Succession planning	HC10	105	3
Innovation	HC11	152	4
Race, gender, religion and disability issues	HC12	28	1
Employee safety & health	HC13	116	3
Know-how	HC14	162	4
Professional experience	HC15	162	4

Expert seniority	HC16	162	4
Senior executive performance and results	HC17	162	4
Total HC		2077	55
Management Philosophy	SC1	141	4
Corporate culture	SC2	138	4
Management processes	SC3	156	4
Quality/Achievements/Recognition	SC4	148	4
Information systems	SC5	155	4
Networking systems	SC6	140	4
Financial relations	SC7	161	4
Total SC		1039	27
Brands	CC1	93	2
Customers	CC2	111	3
Company names	CC3	139	4
Favourable contracts	CC4	40	1
Market share	CC5	82	2
Distribution channels	CC6	72	2
Licensing agreements	CC7	27	1
Business Collaborations	CC8	124	3
Franchising agreements	CC9	13	0
Total CC		701	18
Total ICD		3817	100

Among the three individual components of IC, CC is the least disclosed. However, company names, customers and business collaborations remain the most reported variable under CC3, CC2 and CC8 respectively. The popularity of reporting business collaborations is consistent with prior studies (Guthrie and Petty, 2000; Brennan, 2001; Goh and Lim, 2004 and April *et al.*, 2003). This is expected, and very much in line with the nature of businesses today, focusing much on expansion through joint ventures, mergers and acquisitions. April *et al.*, (2003) attributed this to the focus on global expansion through acquisitions and partnerships.

4.4 OVERALL ICD

This study found that HC was the most reported among the three components of IC at 55%. This is much higher than studies conducted in Malaysia by Foong *et al.*, (2009) at 13%. This is not surprising, as much emphasis has been given to human capital development by the Malaysian government. In support of the institutional theory, these corporations, which are the top 100 companies in Malaysia, may have been pressured to adhere to the policies laid down in supporting the country's quest towards achieving Vision 2020, whereby human capital is one of the prime movers. Figure 2 depicts the overall IC disclosure in this study. The second most disclosed is SC (27%) and the least disclosed is CC (18%).

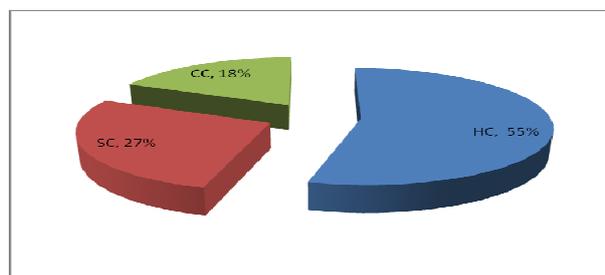


Figure 2
OVERALL ICD

These findings are compared to ICD studies among countries, like the United Kingdom, Australia, Sri Lanka, Italy as well as studies conducted in Malaysia too. The result is tabulated in Table 5 which shows different findings across countries.

Much disclosure was devoted to CC in almost all of the studies conducted, with the exception of some European countries as conducted by Cerbioni and Parbonetti (2007) and in a later study conducted in Malaysia by Foong *et al.*, (2009). Likewise this study also found a similar finding as that of the latter. It is apparent that inconsistent results were found in these ICD studies. Guthrie *et al.*, (2004) advocated that IC content analysis cannot be meaningfully compared due to the inconsistent use of data collection instruments. Other than that, different methodologies adopted by each researcher further compounded the differences in the findings. Sample size used in these studies varied from a minimum of 20 to a maximum of 162 (this study).

On top of that, different numbers of items were used in each of the three categories of IC coupled with different rating scales. It is apparent that there is no consistency in the number of items used in each study, thus it does not facilitate meaningful comparison.

Table 5
COMPARISON OF ICD AMONG COUNTRIES

Author/s	Country	HC (%)	SC (%)	CC (%)
Guthrie and Petty (2000)	Australia	30.00	30.00	40.00
Abeysekera and Guthrie (2005)	Sri Lanka	36.00	20.00	44.00
Bozzolon <i>et al.</i> , (2003)	Italy	21.00	30.00	49.00
Goh and Lim (2004)	Malaysia	22.00	36.00	42.00
Guthrie <i>et al.</i> , (2006)	Australia	10.00	41.00	49.00
	Hong Kong	35.00	37.00	37.00
Cerbioni and Parbonetti (2007)	European countries	18.60	49.60	31.80
Striukova <i>et al.</i> , (2008) ²	UK	21.93	16.99	61.08
Foong <i>et al.</i> , (2009)	Malaysia	13.00	57.00	30.00
This Study	Malaysia	55.00	27.00	18.00

4.5 EXTRACTS OF IC

Steps were taken to ensure validity and reliability in extracting IC related information. The location of the information from the company and the page number is noted for ease of reference and serves as a double checking purpose for the researcher. Some of the extracts of each individual IC category is as shown in Appendix B.

² Corporate reports examined besides annual reports were analyst presentation, annual review, CSR report, interim report, preliminary report, web page and other reports.

5.0 CONCLUSION AND IMPLICATIONS

Human Capital scoring as the highest disclosure is not surprising as human capital development is the key towards achieving a competitive advantage. Thus, it may be concluded that Malaysian corporations are taking their investment in human capital very seriously. As such, much of the information provided voluntarily in the annual reports is testament to their commitment towards human capital development. This could be due to greater emphasis on human capital development by the Malaysian government. In support of the institutional theory, these corporations which comprise the top 100 companies based on market capitalization in Malaysia, may be under pressure to adhere to the policies laid down in supporting the country's quest towards achieving Vision 2020, whereby human capital is one of the prime movers. As stressed by Roslender and Stevenson, (2009, p.13) 'the existence of renewed interest in accounting for people through a focus on IC ultimately provides critical accounting with grounds for a degree of optimism'. With that in mind, perhaps the relevant authorities in Malaysia may start providing guidelines or framework with regard to HC, being an important value creation agent of the twenty-first century.

Under the category of Customer Capital, business collaborations remains the most reported variable under CC8, consistent with earlier studies (Guthrie and Petty, 2000; Brennan, 2001; Goh and Lim, 2004 and April *et al.*, 2003). This could be due to global expansion through acquisitions and partnerships (April *et al.*, 2003). Inconsistent results were found and contrasted with that of Foong *et al.*, (2009), in particular HC, this study reported the highest disclosure of this category. A possible explanation for the prominent disclosure of such information could be due to the fact that, companies investigated in this study, which are top companies, are more proactive in responding to the call in the revised Code. This could partly be due to the pressure impressed upon them for the need to be legitimate, as advocated by the Institutional theory.

Institutional theory attempts to explain why a population becomes homogenous over time. With regard to the extent of disclosure of IC related information among different ownership structures, GLC and OWNDIFF are inclined to disclose more voluntary IC related information. Likewise, FAMC is not disclosing more than the mandated information, consistent with prior studies. GLC as well as OWNDIFF provided IC related information, in anticipation to what they view as an inevitable direction of mandatory reporting and thus responding ahead of others. They behaved in such a manner with due regard to ensuring continued access to the capital market as well as to garner support from the financial markets.

The increasing trend of IC disclosure in Malaysian corporations implies awareness of the importance of IC in particular HC. Since much HC is disclosed voluntarily, the respective institutions in Malaysia may perhaps initiate the reporting on HC as mandatory since such information will not incur additional cost. Such reporting is plausible with specific guidelines provided and may well be in response to calls by Cannibano *et al.*, (2000) in improving the deficiency of the current reporting systems.

Overall, the findings from this study have several implications and contributions for stakeholders, such as users, owners, regulators and investors. This study has empirical, theoretical as well as practical contributions. Empirically, this study provides evidence of the type and the extent of information disclosed voluntarily on IC by corporations in an emerging market, that is Malaysia. The results indicate the significance and growing awareness of IC information reported in the annual report and presents useful insights into IC reporting by the three different ownership structures. These disclosures tap into the richness of IC as well as provide insights on the type of IC in the respective companies listed on Bursa Malaysia. This adds to and extends the literature on Intellectual Capital Disclosure. Further to that, improvement is made to the original framework by Guthrie and Petty (2000) by introducing three additional attributes under the HC categories. These attributes are succession planning; race, gender and religion; and employee safety and health. Under the original framework there is only one attribute under work-related knowledge, likewise in this study it is sub-categorised into know-how, professional experience, expert seniority and senior executive performance results for a richer content analysis.

Prior studies employed the agency theory as one of the theories in explaining IC such as Li *et al.*, (2008), Cerbioni and Parbonetti (2007). This study contributes towards the agency as well as the institutional theories in explaining ownership structures and ICD. In particular, FAMC is still strictly adhering to the agency theory of not disclosing information more than that stipulated by law. This is in agreement to the argument in the agency theory whereby, FAMCs have no necessity to disseminate more information than that required by law. Likewise, OWNDIFF and GLCs will be motivated to disclose more voluntary information as it aids owners in monitoring the behavior of managers as predicted by the agency theory (Hossain *et al.*, 1994; Raffournier, 1995) in reducing agency costs and information asymmetry between both principals and agents.

The institutional theory as advocated by DiMaggio and Powell (1983) that homogeneity of organizational forms and practices results in three forms of isomorphism. Firstly, coercive isomorphism, whereby an entity conforms to rules and regulations resulting from forces, such as rules and regulations. Secondly, normative isomorphism, referring to the need for recognition in professional networks and thirdly, mimetic isomorphism, whereby in the absence of formal guidelines, an organization will resemble itself closely to industry leaders and successful organizations. In this study, OWNDIFF's motivation to provide voluntary information on IC could well be explained by their being in the category of top companies and as for the GLCs it is due to their close association with the Government. Thus, normative and mimetic isomorphism is used in explaining the motivation for GLCs and OWNDIFFs in providing voluntary information of IC in annual reports.

Practically, this study may have implications and be of interest to regulators as well as standard-setters in meeting the growing demand for intangible information to be incorporated in annual reports. This practice of disclosing IC in particular by developed countries such as the Scandinavians and their European counterparts is fast becoming a global trend in corporations of the twenty-first century. Foong *et al.*, (2009, p. 31) stressed that a... 'low level of awareness of IC information as well as the lack of proper guidelines for its disclosure' contributed to the lack of disclosure of voluntary information in the annual reports in Malaysian corporations. In agreement with the call by Foong *et al.*, (2009), the regulators; Bursa Malaysia, as well as the Securities Commission coupled with the preparers of accounts should work towards formulating guidelines in providing a consistent framework for IC.

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7.0 APPENDICES

APPENDIX A: DISCLOSURE CHECKLISTS AND THEIR OPERATIONAL DEFINITIONS

A Human Capital (HC)	Operational definition
<i>Education</i>	
1.Employee Education Programs (HC1)	Education programs initiated by the firm for the support of its executives/staff or community members, for example school or university program/scholarship.
2.Vocational qualifications (HC2)	Qualifications obtained other than academic achievement by its employees such as team building courses, communication skills etc.
<i>Employee</i>	
3.Industrial relations (HC3)	Relations between employers and employees (Oxford Learners Dictionary, Advanced, 2000).
4.Union activity (HC4)	Refers to details of union representing employees.
5.Employee thanked (HC5)	Public expression of gratitude to employee/employees as a token of appreciation on a job well done. (Other key word search - award).
6.Employee featured (HC6)	Special display of prominence of employees of the firm.
7.Employee's involvement in the community (HC7)	Employees' involvement in community work such as charities, fund-raising activities.
<i>Training and development</i>	
8.Training programs (HC8)	Refers to the in-house or external training programs for its executives and staff other than those mandatory training programmes stipulated by Bursa's Listing requirements.
9.Career planning and development programs (HC9)	Career development opportunities for employees in the firm. (Other terms - human capital development program).

10.Succession planning (HC10)	Refers to the process of identifying and preparing suitable employees to replace key players for example the CEO as his term expires.
<i>Innovation</i>	
11.Entrepreneur skills (HC11)	Refers to ability to build on previous knowledge and generate new knowledge (Roos <i>et al.</i> , 1997). (Other key words - search, new products, new ideas, continued improvement of existing lines of products).
<i>Equity issues</i>	
12.Equity issues (HC12)	Equal career opportunities for all irrespective of race, religion, gender and policy in place for employment of disabled persons.
<i>Employee safety & health</i>	
13.Employee safety & health (HC13)	Company's prevention and reduction of health and safety hazards at work.
<i>Work-related knowledge</i>	
14.Know-how (HC14)	Relates to the knowledge and skills possessed by employees (other key words - skills, competence).
15.Professional experience (HC15)	Average number of years that executives worked in their profession (Sveiby, 1997, p.79).
16.Expert seniority (HC16)	Years of employment of executives with the firm (Sveiby, 1997, p.81).
17.Senior executive performance and results (HC17)	Results achieved by senior executives over a given period of time (Guthrie & Petty, 2000).
<i>Structural capital (SC)</i>	
18.Management philosophy (SC1)	Refers to the vision and mission statements. (Search terms cover philosophy and strategy).
19.Corporate culture (SC2)	Refers to disclosure of the attitudes, experiences, beliefs and values of the firm. Search terms included; code of ethics, code of conduct).

20.Management processes (SC3)	Covers policies, procedures, re-engineering & other process & quality certifications associated with the firm (Guthrie <i>et al.</i> , 2006). Other search terms cover business process, performance report, management plan and performance indicators).
21.Quality/recognition/achievements (SC4)	Disclosure of awards achieved by the firm as a measure of its high quality.
22.Information systems (SC5)	Covers systems designed to manage the major functions of the firms such as database, IT system, computer network, hardware, software etc.
23. Networking systems (SC6)	Information technologies encompassing a broad array of communication media and devices which interact with others, gaining access to customers, suppliers, databases. (Other search term covers internet, video-conferencing, fax etc.)
24.Financial relations (SC7)	Relationship between the management and its finance providers such as investors, bankers, analysts.
C. Customer capital (CC)	
25.Brands (CC1)	Details of brands associated with the firm.
26. Customers (CC2)	Refers to customers' evaluation of the product or service. Reflected in customer loyalty, normally found out by survey, customer feedback. (Other key words associated to this; customer confidence, high reputation for goods and services).
27. Company names (CC3)	The esteem held or effect of the firms' name by its stakeholders.
28. Favourable contracts (CC4)	A contract obtained because of the unique market position held by the firm (Brooking 1996, pp.33-34).
29. Market share (CC5)	Firm's share of the market.
30. Distribution channels (CC6)	Information/details on the infrastructure of how the firm provides its products/services to its customers.

31. Business collaborations (CC7)	Other business partnerships in producing or creating the products or services. (Other search term; alliance, partnership, joint product).
32. Licensing agreements (CC8)	Refers to wide ranging agreements that give contracts to other organizations or entities to sell its products or services.
33. Franchising agreements (CC9)	A contractual agreement that grants the license by a person (franchiser) to another (franchisee) to carry out a franchise, franchisee to provide assistance to franchisee in payment of a fee (Brooking 1996, p.32).

Appendix B: EXTRACTS, LOCATION AND SCORE OF IC ASSIGNED

Human Capital	Example of extracts	Company	Location (Page)	Score
1. Education				
	Education is a key to a successful future for our employees and for our company. We encourage learning among children and young people by offering incentives for academic achievement as well as scholarships for higher education.	IOI Corporation	41	1
	A new key initiative was the RM2 million annual endowment for the <i>Astro</i> scholarship that would see deserving students, from among families of our subscribers, pursue their dreams of further education at leading institutions locally and abroad in the creative arts and sciences courses.	Astro	3	3
2. Vocational qualifications				
	Greater focus will also be given to accelerate development of skills and talents of our people to take on new challenges and responsibilities. We believe that it is more fruitful to develop talents of committed employees than to recruit talented but uncommitted people.	IOI Corporation	5	1
	During the year under review, three key initiatives - a Certification Programme for manufacturing employees, an 'Employees Mentoring Programme' and 'Talent Management & Succession Planning' were introduced.	Titan	8	1
3. Industrial relations				
	As a global food company with the largest R&D network in the world, Nestlé has a wealth of resources and expertise to share with local food companies. The concept of Shared Value Creation is well demonstrated by the Nestlé-SME Mentoring Programme for the food industry which is a joint initiative with the National SMI Consultative Centre, established in 1999.	Nestle	12	1

Human Capital	Example of extracts	Company	Location (Page)	Score
	The Group has always been committed to maintaining a conducive and harmonious industrial relations climate. Throughout the year, six of the Group's 10 collective agreements came up for re-negotiation. The prevalence of good diplomatic skills and a mutual willingness to compromise for the betterment of the Group's future led to the satisfactory conclusion of several collective agreements. One such agreement was concluded in just one session. Wage adjustments agreed upon remained competitive and in tandem with the rise in living costs.	F&N	53	2
4. Union activity				
	At IOI Group, we aim to do so in a positive way by due regard to labour practices, human rights, employee health and safety, and broader social issues affecting community relations.	IOI Corporation	40	1
	The Group also enjoys cordial relationship with its various national and in-house unions resulting in smooth business operations.	KLK	43	1
5. Employee thanked				
	Your Board has consistently recognised that our people are our strength and thus, it is only appropriate to officially express our appreciation and thanks to all our leaders and their supporting teams for their unfailing efforts to do better.	KLK	23	1
	On behalf of the Board, I would like to extend our sincere appreciation to the management team and all members of the IOI Group for their unstinting commitment, dedication and loyalty without which our continuous growth and outstanding performance over the years will not be possible.	IOI Corporation	7	1

Human Capital	Example of extracts	Company	Location (Page)	Score
6. Employee featured				
	The principal mentor for this programme is a former Nestlé manager with more than 25 years experience in Quality Assurance, which makes him an ideal mentor for the programme.	Nestle	13	2
	In line with regional best practice, we recognise and reward our employees who go the extra mile in delivering business goals. In the last quarter of 2006, we introduced the British American Tobacco Malaysia Employee Recognition Scheme – comprising various elements from thank you cards to plaques, and cash vouchers, each playing a different role in motivating and rewarding our employees.	BAT	79	1
7. Employee involvement in the community				
	Schools built on Company’s land as well as places of worship are given full support by the KLK community at the plantations in addition to support for local community services and charity work.	KLK	33	1
	Throughout 2006, we conducted various initiatives involving our 1400 grower-curers and 80 entrepreneurs. Activities like workshops, awareness programmes and road shows were held to educate farmers on safe handling of agrochemicals and good agricultural practices as well as the impact and implications of the ASEAN Free Trade Area - Common Effective Preferential Tariff (AFTA-CEPT) scheme.	BAT	51	2
<i>Training and development</i> 8. Training programs				
	During the year, over 30 specially designed training programmes were conducted for executives of the Genting Group, emphasising on skills development in areas such as communications, customer service, information technology, quality management, management development, personal development, operations management for hotels and theme parks.	Genting Bhd	41	2

Human Capital	Example of extracts	Company	Location (Page)	Score
	At Titan Chemicals, our people are our most important asset and we believe in investing in their development. Training and development of our people are an integral part of our business planning and it is important to align these initiatives to our business strategy. These programmes are important for the creation and nurturing of intellectual capital, development of the Company's future leaders as well as employee retention.	Titan	7	1
9. Career planning and development program				
	Work is currently ongoing to define and introduce a fit-for-purpose competency matrix that will define the Core and Leadership competencies needed to meet today's business challenges and growth objectives.	Astro	49	1
	Talent development is paramount to the Company. Great emphasis is placed on mentoring, coaching and mapping of career paths for our employees.	BAT	10	1
10. Succession planning				
	We hope to inspire some of the returning scholars as well as groom many of our talented employees to eventually take up senior management positions to drive our growing operations in Malaysia, and across the region. Succession planning is, clearly, of great interest to the Board. In this respect, we are proud to have been able to name Rohana Rozhan as CEO for the Group's flagship direct-to-home broadcast.	Astro	3	1
	Succession planning ensures leadership continuity in key positions, skills and knowledge development and individual advancement and growth.	BAT	78	1

Human Capital	Example of extracts	Company	Location (Page)	Score															
11. Entrepreneur skills																			
	<p>This year not only saw the Group adding more production lines but also the decommissioning of some of the oldest lines to make way for the installation of new and more advanced production lines. This is one of the many ways that the management had identified to keep the efficiency of its lines and factories optimal. In addition to this, the Group had installed biomass facilities at its two Thailand factories for cost saving measures. The biomass facilities are modelled after the Factory 5, located in Ipoh, Malaysia, which was the first in the Group to switch to a cheaper fuel alternative. With the biomass facilities in place, we are confident in further improving the operating margins of the Group in the coming years.</p>	Top Glove	17	1															
	<p>Newly established in 2006, this Petrochemicals Technology and Business Development department's focus is to identify research, analyze and bring to market new businesses and new products using the latest available cost competitive and reliable technology.</p>	Titan	9	1															
12. Equity issues																			
	<p>Employee by Ethnic Composition</p> <table border="1" data-bbox="360 1429 954 1653"> <thead> <tr> <th></th> <th>2006 RM000</th> <th>2005 RM 000</th> </tr> </thead> <tbody> <tr> <td>- Bumiputra</td> <td>415</td> <td>388</td> </tr> <tr> <td>- Chinese</td> <td>678</td> <td>656</td> </tr> <tr> <td>- Indian</td> <td>191</td> <td>194</td> </tr> <tr> <td>- Foreigners</td> <td>539</td> <td>305</td> </tr> </tbody> </table>		2006 RM000	2005 RM 000	- Bumiputra	415	388	- Chinese	678	656	- Indian	191	194	- Foreigners	539	305	IJM	86	3
	2006 RM000	2005 RM 000																	
- Bumiputra	415	388																	
- Chinese	678	656																	
- Indian	191	194																	
- Foreigners	539	305																	
	<p>It includes the publication of the Employees Handbook which highlights policies on health and safety, training and development, equality of opportunity, staff performance and serious misconduct.</p>	KLCCP	26	1															

Human Capital	Example of extracts	Company	Location (Page)	Score
13. Employee safety & health				
	At IOI Group, we aim to do so in a positive way by due regard to labor practices, human rights, employee health and safety, and broader social issues affecting community relations.	IOI Corporation	43	1
	The well-being of KLK plantation employees and staff continued to receive emphasis through various projects including free medical and child care centres for all workers, staff and their dependents, and training.	KLK	33	2
Work-related knowledge				
14. Know-how				
	Dato' Sri Dr. Lim brings a wealth of experience in the marketing of consumers products whilst he was the Sales Manager of a subsidiary company of OYL Industries Bhd., a company listed on Bursa Malaysia Securities Bhd. In 1991, he set up Top Glove Sdn Bhd, his own glove manufacturing and trading business with only 3 second hand production lines and has expanded this business to be the World Largest's Rubber Glove Manufacturer with 250 production lines in twelve (12) glove factories as at August 2006.	Top Glove	8	2
15. Professional experience				
	He has more than 20 years of experience in the rubber and latex manufacturing business	Top Glove	8	2
16. Expert seniority				
	Aged 48, a Malaysian citizen, was appointed as Chairman and Managing Director on 4 September 2000. He is also the founder of Top Glove Group of Companies.	Top Glove	8	2

Human Capital	Example of extracts	Company	Location (Page)	Score
17. Senior executive performance and results				
	He served as the President (1997 to 1999) of the Malaysian Rubber Glove Manufacturers' Association (MARGMA), prior to this; he was also the Vice-President, Treasurer, Honorary Secretary for the past seven (7) years in this association. In 1998 and 1999, he was the Director of the Association of Malaysia Medical Industries (AMMI). In 1998 and 1999, he was the Board member of the Malaysia Rubber Board.	Top Glove	8	2
Structural capital	Example of extracts	Company	Location (Page)	Score
18. Management philosophy				
	Our philosophy is to encourage our people to be committed to the work they do rather just be involved in it. Passion and determination are what transform the ordinary, into the extraordinary.	IOI Corporation	12	1
	At British American Tobacco Malaysia, we will continue to be guided by our strategic focus on generating Growth, enhancing Productivity, running our business Responsibly and building a Winning Organization.	BAT	11	1
19. Corporate culture				
	DiGi's way of working - dynamic, simple and creative.	DiGi	34	1
	Wellness at Work and living up to the Nestlé Corporate Values of Trust, Respect, Involvement and Pride continue to guide the Group, helping ensure that Nestlé is a "great place to work" and a "great company to perform for".	Nestle	25	1

Human Capital	Example of extracts	Company	Location (Page)	Score
20. Management processes				
	IOI is in fact one of the ten founding members of the Roundtable on Sustainable Palm Oil (“RSPO”), a global multi-stakeholder initiative established to promote the sustainable production of palm oil. Via the RSPO, IOI has helped to define the criteria for sustainable palm oil production. The membership has given the Group a chance to enhance the practice of sustainability in the fields of agriculture, environment and social issues. Since after the adoption of RSPO’s 8 principles and 39 criteria in November 2005, IOI Group had committed to test it in 2 estates, 1 in Peninsular and 1 in Sabah.	IOI Corporation	37	1
	We continue the re-engineering process of our primary infrastructure at the All Asia Broadcast Centre (ABC). This includes the new Media Management System (MMS) which is now at its final implementation phase at Cyberjaya, to further automate the broadcast transmission management process at the ABC.	Astro	34	1
21. Quality/recognition /achievements				
	In January 2006, Dialog Plant Services Sdn Bhd ("DPSSB") was awarded with ISO9001:2000 by SIRIM QAS International Sdn Bhd, which is endorsed by the United Kingdom Accreditation Services ("UKAS"). The certification covers Plant Turnaround/Shutdown and Maintenance Services to the petroleum, petrochemical, industrial gases and power generation industries	Dialog	6	1
	Best Managed Company, Best Corporate Governance, Best Commitment To Strong Dividend Payment, Third Place For Best Investor Relations 2006 – Finance Asia Recognition for being one of Malaysia’s best managed companies.	BAT	1	2

Human Capital	Example of extracts	Company	Location (Page)	Score
22. Information systems				
	The Group's IT Department is pleased to report the successful implementation of the new Electronic Checkroll System, the e-CR Bar Code System in all estates in Peninsular Malaysia.	KLK	45	1
	In 2006, new information technology systems for better planning and execution accuracy were successfully rolled out to both the DSD set-up in Klang Valley. These systems will be deployed to the remaining distributors nationwide by end of 2007.	BAT	39	1
23. Networking systems				
	The IOI Group has a robust and fully integrated global supply chain.	IOI Corporation	41	1
	The CoE is the first of its kind for British American Tobacco Asia Pacific. It establishes best practices in trade marketing and distribution as well as houses state of the art training facilities, which include a retail simulation centre	BAT	38	1
24. Financial relations				
	On a regular basis, DiGi's management hold one on-one meeting with analysts, fund managers and shareholders to provide updates on quarterly financial performance, regulatory issues as well as changes in operating environment which may impact the Group's operations.	DiGi	46	1
	The Company uses the following key investor relation activities to update investors, to explain its business and financial objectives and to solicit feedback from investors: <ul style="list-style-type: none"> • Meeting with financial analysts and institutional fund managers; • Participating in road shows and investors conferences, both domestically and internationally; and • Participating in teleconferences with investors and research analysts 	IOI Corporation	74	1

Human Capital	Example of extracts	Company	Location (Page)	Score
Customer capital 25. Brands				
	Marketed under the brand name “Clarinol”, Omega-3 fatty acids marketed under the name “Marinol” and gamma linoleic acid which is marketed under the name “Gammonal”.	IOI Corporation	44	1
	Key drive brands - Dunhill, Pall Mall and Kent.	BAT	8	1
26. Customers				
	The Group has also established several websites with the main one being www.ioigroup.com, for shareholders and the public to access corporate information, financial statements, news and events related to the Group on a timely basis.	IOI Corporation	75	1
27. Company names				
	We are pleased to report that IOI was polled the Best Managed Company Award in Malaysia and ranked second in the Best Managed Company Award in Asia at the recent Euromoney 2005 Best Managed Company Awards, and was also polled the Best Managed Company Award in Malaysia at the Asiamoney’s Best Managed Companies Awards 2005	IOI Corporation	68	1
	Our series of talent quests continue to rate highly with our viewers. The most anticipated programming highlight of the year was, again, our reality talent quest <i>Akademi Fantasia (AF)</i> .	Astro	29	1

Human Capital	Example of extracts	Company	Location (Page)	Score
28. Favorable contracts				
	A significant portion of IOI Oleo's production is sold to customers under long term supply contracts.	IOI Corporation	43	1
	In the United States of America, ILTS's revenue is expected to increase with the new contract signed with PGMC for the supply of a new on-line lottery system and 2,000 new sales terminals as well as the contracts for an election management system to be supplied to Jackson County in Missouri and LA County in California	BJToto	12	2
29. Market share				
	At the end of the financial year, there were 1.941 million subscribers in total, of which residential subscriptions accounted for 1.784 million, representing 34% of Malaysian TV homes.	Astro	20	2
	Concerted efforts by key product categories yielded strong results, with some of the categories, such as MILO, KIT KAT and NESCAFÉ making significant strides and increasing their market share.	Nestle	20	1
30. Distribution channels				
	To better serve its wide geographical distribution of customers, IOI Oleo has a network of distributors and agents in various countries, including countries in Europe, Asia and Australia as well as storage facilities in Europe, and the United States.	IOI Corporation	43	1
	Awana Vacation Resorts Development Bhd ("AVRD"). AVRD has direct exchange with resorts in Europe, Australia, China, India and Thailand, in addition to Group's resort properties. All room reservations are subject to availability.	Genting Bhd	34	1

Human Capital	Example of extracts	Company	Location (Page)	Score
31. Licensing agreements				
	The Astro pay-TV service has commenced service in Indonesia under a trademark licensing arrangement.	Astro	2	1
32. Business collaborations				
	IOI Oleo is also a 30% joint-venture partner with Kao Corporation of Japan for the production of fatty alcohol.	IOI Corporation	43	2
	Proactive marketing and promotional efforts including tie-ups with airlines and other merchants have enabled the resort to achieve a higher occupancy rate of 68% in 2006 (2005: 51%).	Genting Bhd	34	1

8.0 AUTHOR

Dr. Gan Kin is a senior lecturer attached to the Faculty of Accountancy, Universiti Teknologi MARA, Melaka city campus. She is a member of the Malaysian Institute of Accountants and a fellow of the Association of Chartered Certified Accountants (ACCA). Her area of research interest is in financial reporting in respect of voluntary disclosure in particular intellectual capital. Dr. Gan has presented papers in conferences both locally and abroad and published articles in refereed journals and professional magazines. She can be contacted at kingan@melaka.uitm.edu.my

CONSOLATION PRIZE

EVALUATION OF ACCOUNTING INTERNSHIP: SKILLS PERSPECTIVE

Ms Yunita Awang

Ms Rohana Yusoff

Ms Inayah Abdul Aziz

Ms Yusliena Yusoff

ABSTRACT

Internship gives opportunities for interns to get practical experience in their chosen profession. Similarly, internship facilitates recruiting efforts among employers. In ensuring the success of internship program so that both interns and employers benefit, interns need to perform their tasks with adequate skills. The purposes of this article are to assess the interns' skills and the gap in interns' skills, based on employers' expectation and observation. This article also evaluates the interns' strengths and weaknesses based on quantitative and qualitative responses of employers and ultimately give evidence to the readiness of the employers to employ interns upon graduation for permanent employment. A study was conducted on 200 accounting interns of a public university in the year 2008 and 2009. Questionnaires were distributed to all employers involved in the internship program. Completed questionnaires were collected by Internship Observers at the end of the internship period. All the questionnaires were monitored by the Coordinator of Internship Program, which made it possible to collect a 100% response. Descriptive statistics was used to analyse the demographic information of the respondents and the readiness of the employers to accept interns for permanent employment. Mean analysis was used to assess the skills expected and observed by employers. Wilcoxon Rank test was used to examine the gap between employers' expectation and observation on interns' skills. For the qualitative responses on the strengths and weaknesses of interns, all responses were analysed and grouped according to seven different categories based on the instrument used, which were then summarised using frequency analysis. The findings indicated that there is a significant difference in certain skills expected by the employers as compared to the skills actually possessed by the interns. An insignificant gap between the expected and observed job attitude among interns with bachelor degrees, coupled with the highest count in interns' strengths for job attitude signalled that the university was able to produce interns who possess the correct work attitude. From both quantitative and qualitative responses, communication skill is the main skill prominently lacking among the interns. Above all, a majority of the employers (94.8%) are ready to accept these interns as their permanent employees.

1.0 INTRODUCTION

An internship program can be an important part of an accounting education as working experience has become a vital component of any education and profession. Internship provides a structured platform for students to apply their classroom knowledge, improve career prospects and develop other skills such as communication and problem-solving (Cord *et. al*, 2010). Internship program is aimed to bridge the gap between theory and practice. Internship enriched students' learning environment in which their theoretical knowledge is viewed in new and different ways (Martinez, 1996, as quoted by Beck and Halim, 2008).

The role of internship is also seen as a means for career development of students in any field. Internship enhanced knowledge and motivation among the students (Beard, 2007). Through internship, students can obtain some insights into the 'real world' of accounting as they are inexperienced with the real job nature. Internship can also open the doors to permanent employment opportunities (Goodman, 1982; Siegel and Rigby, 1988 as quoted by Beard, 2007). Internship increased interns' job opportunities and they have a better chance of getting hired (Dulgarian, 2008). Callanan and Benzing (2004) also found a linkage between completion of internship and finding career-oriented employment. Similarly, Baker (2008) stated that internship helps to ascertain the right match between students and organizations. Internship gives opportunity for interns to sample and determine the suitability of a particular job offer before making any commitment of accepting the job (Beck and Halim, 2008).

For employers, internship can provide skilled and dedicated temporary employees at a minimal cost for businesses and nonprofit organizations. During the period, interns must demonstrate good analytical skills, independence and competency when performing the tasks assigned in order to pass the internship requirement. As stated by Maisarah and Raja Adzrin (2009), both hands-on skills and soft skills such as communication, interpersonal, and teamwork skills would be developed during the internship, thus gaining marketability upon graduation. Beck and Halim (2008) identified the learning outcomes of internship to include adaptability, self-efficacy or interpersonal skills, working under pressure, computer skills, applying classroom learning, and leadership or self-presentation.

Another study carried out by Cord *et. al* (2010) concluded that communication skills, teamwork skills and the skills in performing specific processes or tasks namely the use of accounting software, problem identification, organization skills and analytical skills are common skills identified as either a strength or weakness of interns during the internship program.

However, Rusnah Muhamad *et al* (2009) found that there was a gap between the interns perception before and after they have completed the internship attachment. Students did not achieve their expectations in obtaining the knowledge and experience that could be used in their future working environment. They also revealed that the internship experience did not improve their technical skills and interpersonal skills except in public sector accounting. This could be due to internship attachments in small audit firms that still maintained manual recording and auditing processes rather than automated working papers and automated audit software.

In promoting the success of internship programs, universities and institutions of higher learning are viewed as job training centres, which provide students with skills for careers in accounting (Henderson, 1996). Universities and higher learning institutions are expected to run courses that focus on training young accountants both in theoretical and practical skills. Internship therefore allows universities to gauge the relevance of its curriculum in a professional environment (Beck and Halim, 2008).

Nowadays, most companies and firms are searching for knowledgeable employees that can do their job without full and close supervision. The adoption of IFRS requires an accountant with technical skills as well as strong soft skills such as judgement, critical thinking, analysis, integrity and openness (Leone, 2008, as quoted by Kermis and Kermis, 2010). Those candidates that have intellectual skills, communication and interpersonal skills as well as being independent and competent are most preferred. Thus, working experience under the internship program is fundamental to students entering the job market, as it would provide them with the essential practical knowledge required by the profession of accounting. Beard (2007) found out that internship experiences can contribute to the student, institution and the employing entity in terms of enhancing the student's ability to integrate academic knowledge with practical applications, for career development. For example, the auditing course work performed by interns was found to be significantly better than that of the non-internship (Knechel and Snowball, 1987, as quoted by Beard, 2007); and experienced interns were more

capable of coping with unstructured tax assignments than those who had not undertaken an internship (Maletta *et. al*, 1999, as quoted by Beck and Halim, 2008). Additionally, Velde (2010) concluded the employers perceived the extreme importance of graduates possessing positive attitudes and behaviours, such as being responsible and adaptable and working safely in the workplace.

According to Kirch, Tucker and Kirch (2001) as quoted by Kermis and Kermis (2010) a successful career is 80% contributed by the ability to understand oneself and interact with other people, while the remaining 20% is contributed by intelligence that includes the ability to learn, understand and reason. The CPA Vision 2011 Project sponsored by the American Institute of Certified Public Accountants (2008) reported that successful accountants should possess communications and leadership skills as these skills are considered the core competencies in the profession.

Although universities attempt to provide both theoretical and practical knowledge to their students, the profession would normally regard new graduates as inadequately prepared: full of theory, unaware of the most basic aspects of the 'real' world, and virtually useless for as long as a year (Henderson, 1996). In a study done by Gurvinder and Sharan (2008), they found that the graduates and employers have significantly different perceptions concerning the employability skills needed in the job market and what the graduates can provide. Among the employability factors are problem solving and adaptability skills, human skills, English language proficiency, ICT skills, personal organization and time management, leadership skills and communication skills. Additionally, Milner and Hill (2007) detailed out the skills gap that pointed out what the accounting graduates lacked which included communication and problem solving skills that was expected by the accounting profession.

The purpose of this article is to assess interns' skills and the gap in interns' skills, based on employers' expectation and observation. This article also evaluates the interns' strengths and weaknesses based on quantitative and qualitative responses of employers. This article ultimately gives evidence to the readiness of the employers to employ interns upon graduation for permanent employment.

2.0 MATERIALS AND METHODS

2.1 Instrument

The research instrument developed is a questionnaire consisting of five sections. Section A consists of questions on demographic information, Section B on company's expectations, Section C on company's observation, Section D on adequacy of a university's curriculum and Section E are open-ended questions regarding weaknesses, strengths and ways to improve an intern's capability. Every question in section B uses a Likert scale of 1 to 10, where scale of 1 indicates not expected and scale 10 indicates highly expected. Questions in Section C also use Likert scale of 1 to 10, where scale of 1 indicates unsatisfactory and scale 10 indicates highly satisfactory. Section D uses Likert scale of 1 to 10, where 1 indicates strongly disagree and scale 10 indicates strongly agree. All questions use sentences in the affirmative form.

2.2 Sampling and data collection

An internship program for accounting students has been implemented for several years in most universities in Malaysia. Universiti Teknologi MARA (UiTM) is one of them that has implemented internship in its accounting program as a compulsory course. Currently, the students from Semester 5, Diploma in Accounting Information System (DAIS) and Semester 7, Bachelor of Accountancy (BAcc) are required to complete their internship for the duration of six months.

This study focused on students from accounting programs, including both BAcc and DAIS, in the year 2008 and 2009. The period of two years was selected for two reasons. Firstly, as these are the most recent years and secondly, the instrument was fully used for evaluating internship program throughout the UiTM Terengganu Campus (UiTMT) since 2008. This is a population survey, involving 200 interns, who have undergone internship at various firms in several locations. Thus no sampling technique was applied. The questionnaires were distributed to all employers involved in the internship program with the accounting faculty of UiTMT. A completed questionnaire was collected by Internship Observers at the end of the internship period. All the questionnaires were monitored by the Coordinator of Internship Program, which made it possible to collect 100% responses.

2.3 Method

Descriptive statistics were used to analyze the demographic information of the respondents and the readiness of the employers to accept interns for permanent employment. In assessing the skills expected and observed by employers the measure of central tendency was used which was mean analysis. A check on the distribution of data reveals that they were not normally distributed. Thus, Wilcoxon Rank test was used instead of paired t-test to examine the gap between employers' expectation and observation on interns' skills.

For the qualitative responses on the strengths and weaknesses of interns, all responses were analysed and grouped according to seven different categories based on the instrument used. These include interpersonal, communication, intellectual, taking initiative, job attitude, and personal efficiency and leadership skills. Frequency analysis was used to summarise the interns' strengths and weaknesses.

3.0 RESULTS AND DISCUSSIONS

3.1 Quantitative Data

The internal reliability of the instrument was inspected using Cronbach's Alpha and the result is shown in Table 1. The Cronbach's Alpha values are between 0.913 and 0.957 indicating that all variables under each factor can be highly considered as measuring the same concept.

Table 1: Internal reliability

Factor	Cronbach alpha	Number of items under each factor
Interpersonal skills	0.913	3
Communication skills	0.920	4
Intellectual skills	0.957	5
Taking initiative	0.945	4
Job Attitude	0.943	5
Personal Efficiency	0.953	4
Leadership skills	0.930	3

Table 2 shows the respondents' profile. Since the population proportion of female students is bigger than the proportion of male students, the percentage of female respondents (78.5%) is naturally higher than the percentage of male respondents (21.5%). Most of them were in semester November 2008 (36.5%) followed by semester May 2008 (31.0%). 51.0% of the respondents were bachelor students, while 49.0% were diploma students. More than half of the respondents (59%) have undergone their internship in accounting and audit firms which mainly are sole traders (27%) and private limited companies (26.5%). These firms are primarily located in Terengganu (36.5%) and a majority of the firms (80%) are with number of employees less than 100. Receiving students for internship has been part of the regular practice of 94% of these firms.

Table 2: Respondents' profile

Sex	Female	78.5%
	Male	21.5%
Semester	May 2008	31.0%
	Nov 2008	36.5%
	May 2009	18.0%
	Nov 2009	14.5%
Discipline of Study	BACC	51.0%
	DAIS	49.0%
Types of firm	Sole-Trader	27.0%
	Partnership	20.5%
	Limited Company	7.0%
	Private Limited Co.	26.5%
	Others	18.5%
Location	Terengganu	36.5%
	Kelantan	21.0%
	Pahang	12.0%
	Melaka	1.0%
	Johor	7.0%
	N Sembilan	0.5%
	Selangor	9.0%
	Kuala Lumpur	8.0%
	Perak	0.5%
	Kedah	3.0%
	Sabah	1.0%
Nature of Firm	Accounting & Audit	59.0%
	Non Accounting & Audit	41.0%

No. of Employees	<100	80.0%
	100<500	12.0%
	500<1000	1.5%
	>1000	5.0%
Regular Practice	Yes	94.0%
	No	2.0%
	No Answer	1.0%

The criteria expected by employers were analysed based on Section B of the instrument used in this study (Refer Appendix 1). The mean score results are shown in Table 3(a), Table 3(b), Table 4(a) and Table 4(b) below. The criteria expected by employers are effectiveness in communication (b1), intellectual skill (b2), taking initiative (b3), positive job attitude (b4), quality work (b5), quantity of work (b6), ability to learn (b7), leadership skill (b8), job knowledge (b9), English communication skill (b10), third language communication skill (b11), creativity (b12), pro-active (b13), punctuality (b14), high endurance (b15), properly attired (b16) and appropriate personality for the job (b17).

Results from Table 3 show that for Accounting and Audit firms, the highest score for criteria expected by employers on DAIS interns is properly attired with 9.13 and the lowest is 7.68 for English communication skill. The results for b11 (third language communication skill) is excluded from this analysis because third language skill does not strongly affect the environment for internship programs of UiTMT. Most of the companies stated that third language is not expected of the interns. For non Accounting and Audit firms, the highest score is 9.5 which is for the expectation of quality work, quantity of work and ability to learn. Table 4 shows the criteria expected of BAcc interns. For Accounting and Audit firms, the highest criterion expected by employers is punctuality with a score of 8.56 and the lowest is leadership skill with a score of 7.67. For non Accounting and Audit firms which is services in nature, the criterion properly attired is highly expected by the employers (8.83). On the other hand the traits of creativity and being pro-active are least expected by these employers. Meanwhile for government agencies, taking initiative, positive job attitude, and creativity are the most expected criteria by employers with the score of 10. The least expected skills by these employers are English communication and properly attired (8).

Table 3(a): Mean Score - Criteria expected by employers on DAIS interns

Nature of organization	b1	b2	b3	b4	b5	b6	b7	b8
Accounting & Audit	8.61	8.48	8.3	9	8.7	8.39	8.82	7.91
Non Accounting & Audit								
Hospitality	7.67	8.33	8.67	8.67	8.67	9	9	7
Manufacturing	7.56	7.78	8.11	8.78	8	8.22	8.11	6.67
Consumer Trading	8.5	8.25	8.25	8.5	9	8.5	8.5	7.25
Services	7.96	7.54	8.09	8.5	8.08	7.83	8.71	7.45
Education	9	8	7.5	8.5	9.5	9.5	9.5	8.5
Government Agency	8.09	8.3	8.52	9.04	8.48	8.43	9.22	7.96
Others	7.5	7.5	7.63	8.5	8	7	8.38	6.57

Table 3(b): Mean Score - Criteria expected by employers on DAIS interns

Nature of organization	b9	b10	b11	b12	b13	b14	b15	b16	b17
Accounting & Audit	8.17	7.68	6.83	7.96	8.52	8.87	8.26	9.13	8.65
Non Accounting & Audit									
Hospitality	8	7	6	8.67	8.67	8.67	8.67	9.33	8.33
Manufacturing	7.67	6.75	4.33	6.88	8	8.33	8.11	8.78	8.44
Consumer Trading	8	7.5		8	8.25	8.5	8.75	9	8.5
Services	7.83	7.09	4.6	7.67	8.04	8.46	7.74	8.46	8.33
Education	8.5	8		9	8.5	8.5	8.5	9	9.5
Government Agency	8.09	7.67	6	8.27	8.61	9	8.52	9.17	9.09
Others	6.88	6.71	4	6.63	6.5	7.88	7.38	7.75	8.13

Table 4(a): Mean Score - Criteria expected by employers on BAcc interns

Nature of organization	b1	b2	b3	b4	b5	b6	b7	b8
Accounting & Audit	8.04	7.75	8.15	8.52	8.18	7.88	8.52	7.67
Services	7.5	7.5	7.33	8	7.67	7.5	8.17	7.33
Government Agency	9	9	10	10	9	9	9	9

Table 4(b): Mean Score - Criteria expected by employers on BAcc interns

Nature of organization	b9	b10	b11	b12	b13	b14	b15	b16	b17
Accounting & Audit	7.82	7.77	6.24	7.38	7.92	8.56	8.11	8.8	8.46
Services	7.83	7.67		7.17	7.17	8	7.83	8.83	8.67
Government Agency	9	8		10	9	9	9	8	9

For the observation by employers, Section C of the instrument evaluates the interns' performance based on seven categories of skills that is, interpersonal, communication, intellectual, taking initiative, job attitude, personal efficiency and leadership. (Refer to Appendix 2). The criteria observed by employers during the internship as summarized in Table 5 and Table 6 are interpersonal skill (s1), communication skill (s2), intellectual skill (s3), taking initiative (s4), job attitude (s5), personal efficiency (s6) and leadership skill (s7). For DAIS interns, job attitude scored the highest (8.77) for both Accounting and Audit firms and non Accounting and Audit firms. While the lowest scored skill observed is communication (7.99) for Accounting and Audit firms and intellectual skills is least observed by non Accounting and Audit firms (6.95). Similar results are shown for BAcc interns where the highest score of 8.19 is for job attitude. However the lowest score of 7.71 is for taking initiative.

Table 5: Mean Score - Observed Skills on DAIS interns

Nature of organization	s1	s2	s3	s4	s5	s6	s7
Accounting & Audit	8.41	7.99	8.26	8.15	8.77	8.39	8.45
Hospitality	8	7.42	8.33	8.08	8.27	8.17	7.67
Manufacturing	7.93	7.56	7.91	8.08	8.64	8.33	8.33
Consumer Trading	7.42	7.13	6.95	7.25	7.1	7.38	7
Services	8.26	7.76	8.04	8.04	8.52	8.35	8.11
Education	8.5	8.75	8.9	8.5	8.4	8.88	8.5
Government Agency	8.86	8.58	8.77	9.04	9.23	9.07	8.9
Others	8.33	7.63	7.88	8.13	8.62	8.25	8

Table 6: Mean Score - Observed Skills on BAcc interns

Nature of organization	s1	s2	s3	s4	s5	s6	s7
Accounting & Audit	8	7.73	7.79	7.71	8.19	7.87	7.89
Services	8.06	7.88	7.87	7.96	8.17	7.88	7.94
Government Agency	9.67	9.25	9.4	9.25	9.8	9.5	9.33

Further analysis was carried out using Wilcoxon Rank test to examine the gap between the employers' expectation and observation of interns. Table 7 and 8 show the analysis on the gap between the employers' expectation and observations for BAcc interns. The results revealed that there are significant differences between criteria expected and observed by the employers for interpersonal skills and leadership skills with a significant p value of 0.000 and 0.009 respectively. Generally employers expect a higher interpersonal (8.44) skill than observed (8.01) whereas for leadership skill, interns performed higher than expected.

Table 7: Gap Analysis for BAcc interns

Criteria							
	Interpersonal - personal	Communication - communication	Intellectual Skill - Intellectual	Initiative - Initiative	Attitude - attitude	Efficiency - efficiency	Leadership Skill - leadership
Z	-3.839 ^a	-.742 ^a	-1.420 ^b	-.056 ^a	-.509 ^a	-1.720 ^a	-2.611 ^b
Asymp. Sig. (2-tailed)	.000	.458	.156	.956	.611	.086	.009

Table 8: Skills observed and expected for BAcc interns

Skills observed and expected	N	Mean	Std. Deviation	Minimum	Maximum
Observed interpersonal	102	8.0163	1.31454	4.33	10.00
Observed communication	102	7.7549	1.26988	4.00	10.00
Observed intellectual	102	7.8108	1.30785	4.20	10.00
Observed initiative	102	7.7443	1.45165	3.25	10.00
Observed attitude	101	8.2040	1.29984	3.80	10.00
Observed efficiency	100	7.8850	1.27892	4.25	10.00
Observed leadership	100	7.9067	1.34597	4.00	10.00
Expected interpersonal	100	8.4450	1.13015	5.00	10.00
Expected communication	100	7.8900	1.19886	4.00	10.00
Expected intellectual Skill	100	7.75	1.306	4	10
Expected initiative	100	7.8333	1.41521	3.00	10.00
Expected job attitude	100	8.3600	1.18035	4.00	10.00
Expected efficiency	100	8.0933	1.16626	4.00	10.00
Expected leadership Skill	95	7.66	1.470	3	10

However for DAIS interns, the criteria that have significant differences between expected and observed are communication, intellectual, taking initiative, and job attitude and leadership skills with a significant p value between 0.000 to 0.030 as shown in Table 9. In all these skills, interns generally perform better than expected. Results in Table 10 show that mean observed scores are all higher than mean expected scores. This finding is consistent with the previous research by Gurvinder and Sharan (2008) which reveals that all the seven employability skills tested (problem solving and adaptability skills, human skills, English language proficiency, ICT skills, personal organization and time management, leadership skills and communication skills) are significantly different between what graduates provide and what employers require. In another study by Milner and Hill (2007) it is also found that there is a gap between the skills of accounting graduates and skills expected by employers in terms of lacking in communication and problem solving skills.

Table 9: Gap Analysis for DAIS interns

Criteria							
	Epersonal - personal	Ecomm - communication	Intellectual Skill - Intellectual	Einitiative - Initiative	Eattitude - attitude	Eefficiency - efficiency	Leadershi p Skill - leadership
Z	-1.837 ^a	-2.501 ^b	-2.365 ^b	-2.176 ^b	-2.319 ^b	-1.681 ^b	-5.949 ^b
Asymp. Sig. (2- tailed)	.066	.012	.018	.030	.020	.093	.000

Table 10: Skills observed and expected for DAIS interns

Skills observed and expected	N	Mean	Std. Deviation	Minimum	Maximum
Observed interpersonal	98	8.3707	1.13255	5.33	10.00
Observed communication	98	7.9541	1.12054	5.25	10.00
Observed intellectual	98	8.2184	1.17046	5.00	10.00
Observed initiative	98	8.2908	1.08747	5.25	10.00
Observed attitude	98	8.6918	1.06729	4.80	10.00
Observed efficiency	98	8.4847	1.14526	5.25	10.00
Observed leadership	98	8.3299	1.21700	5.33	10.00
Expected interpersonal	98	8.4643	1.23991	5.00	10.00
Expected communication	98	7.7398	1.18023	4.50	10.00
Expected intellectual Skill	98	8.01	1.248	4	10
Expected initiative	98	8.0646	1.26673	5.00	10.00
Expected job attitude	98	8.5034	1.09486	5.33	10.00
Expected efficiency	98	8.3002	1.18558	5.50	10.00
Expected leadership Skill	95	7.52	1.443	4	10

3.2 Qualitative Responses

Qualitative responses obtained were based on Section E of the instrument (Appendix 3). All the responses received were typed-written (refer to Appendix 4), analysed one by one and classified according to different skills they resemble. According to Robson (1995) responses can be coded and combined into a limited number of categories to simplify the description of the data thus allowing for statistical analysis. The summary of strengths and weaknesses are shown in Table 11 and Table 12 below. The ‘count’ column shows the number of skills possessed by the interns. One intern may have more than one skill in terms of strength as well as weaknesses.

Table 11: Interns’ Strengths

Skills	Count
Interpersonal skills	11
Communication skills	10
Intellectual skills	19
Taking initiative	46
Job attitude	72
Personal efficiency	41
Leadership skills	3

The highest strength exhibited by the interns during their internship is job attitude. Interns were found to be hardworking, responsible and highly motivated. Employers are also in agreement that the interns are capable to produce quality work, to work with minimal supervision and to complete work within a given time. This is evidenced by next highest count for taking initiative and personal efficiency skills.

Among the lower count for interns’ strengths include interpersonal and communication skills. This indicates that interns are still lacking in terms of co-operation with co-workers, supervisors and subordinates. Interns were also not fully able to express their ideas during internship. This is also evidenced in the study done by Cord *et.al* (2010), where interns identified their teamwork skills as either a strength or weakness. Intellectual skill was found only in a few interns which could be due to the work environment that did not require the application of IT knowledge, problem solving and decision making.

Although the leadership skill is of the lowest count observed among the interns, no direct conclusion can be drawn. This is because the task given to the interns during the internship did not possibly provide interns the opportunity to exhibit their leadership skills. Interns were expected to learn all aspects of the job but were rarely involved in situations that needed them to portray leadership skills.

Table 12: Interns' Weaknesses

Skills	Count
Interpersonal skills	3
Communication skills	12
Intellectual skills	9
Taking initiative	12
Job attitude	5
Personal efficiency	3
Leadership skills	3

Communication and taking initiative skills scored the highest count for weaknesses of the interns while the second highest count is for intellectual skills. The low count in Table 11 for communication skills and the high count in Table 12 strongly indicate that most of the interns are lacking in communication skills. This is in line with the finding by Koncz and Collins (2007), as quoted by Beard (2008) also found that verbal and written communication skills were the most lacking in new college graduates. In another study done by Cord *et. al* (2010) where the most common strength and weakness among the accounting interns surveyed was communication. The high count for taking initiative also indicates that there are students who still lack this skill although Table 11 above shows that most students possess the skill.

Even though there are mixed responses about interns' strengths and weaknesses, a majority of the employers (94.8%) are ready to accept these interns as their permanent employees.

4.0 CONCLUSION

This study demonstrates that generally, accounting interns do meet certain expectations of the employers. Most of the employers are ready to accept these interns as their permanent employees. The insignificant gap between expected and observed job attitude among BAcc interns, coupled with the highest count in interns' strengths for job attitude signals that UiTM is able to produce interns who possess the correct work attitude.

However, there is still a gap on certain skills expected and actually observed by the employers. From both quantitative and qualitative responses, communication skill is the main skill prominently lacking among the interns. For BAcc interns, a low count among the strengths and significant gap between expected and observed interpersonal skill shows that this is another skill that BAcc interns need to enhance. Conversely, DAIS interns need to get more exposure to develop better intellectual skill, taking initiative and job attitude.

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6.0 APPENDICES

Appendix 1: Questions on Company's Expectations towards Interns

No.	Company's Expectations	Not			Quite			Highly				Not Related
		Expected			Expected			Expected				
1	Effectiveness In Comunication	1	2	3	4	5	6	7	8	9	10	NR
2	Intellectual skill	1	2	3	4	5	6	7	8	9	10	NR
3	Taking initiative	1	2	3	4	5	6	7	8	9	10	NR
4	Positive job attitude	1	2	3	4	5	6	7	8	9	10	NR
5	Quality work	1	2	3	4	5	6	7	8	9	10	NR
6	Quantity of work	1	2	3	4	5	6	7	8	9	10	NR
7	Ability to learn	1	2	3	4	5	6	7	8	9	10	NR
8	Leadership skill	1	2	3	4	5	6	7	8	9	10	NR
9	Job knowledge (Hard skill)	1	2	3	4	5	6	7	8	9	10	NR
10	English Communication skill	1	2	3	4	5	6	7	8	9	10	NR
11	Third language communication skill (please state)	1	2	3	4	5	6	7	8	9	10	NR
12	Pro- Active	1	2	3	4	5	6	7	8	9	10	NR
13	Creativity	1	2	3	4	5	6	7	8	9	10	NR
14	Punctuality/Meeting Date Lines	1	2	3	4	5	6	7	8	9	10	NR
15	High Endurance	1	2	3	4	5	6	7	8	9	10	NR
16	Properly attired	1	2	3	4	5	6	7	8	9	10	NR
17	Appropriate personality for the job	1	2	3	4	5	6	7	8	9	10	NR

Appendix 2: Questions on Company's Observation towards interns

Unsatisfactory → Highly satisfactory

1 2 3 4 5 6 7 8 9 10

Interpersonal Skills

1. Co-operation with co-workers, supervisors and subordinates.
2. Carry out instructions well.
3. Ability to manage conflict that arises in working condition.

Communication Skills

4. Able to express ideas.
5. Able to write good report concerning his/her work during internship
6. Effective listener.
7. Able to communicate in English.

Intellectual Skills

8. Solves problem logically.
9. Able to extract important information from various sources to solve problems.
10. Able to make correct decision when necessary.
11. Observe ethical standards in performing job.
12. Has an appropriate level of information technology skill.

Taking initiative

13. Able to memorize facts related to work.
14. Able to work under minimal supervision.
15. Able to manage time properly.
16. Always find ways to improve his/her performance during job training.

Job Attitude

17. Responsible to the task given.
18. Highly motivated to complete task given.
19. Has a positive attitude in facing stressful situations.
20. A punctual person.
21. Frequency of attendance at work.

Personal Efficiency

22. Quantity of work performed is at the level of standard required.
23. Quality of work produced is comparable to the accepted quality standards.
24. A fast learner.
25. Able to recognize job priority.

Leadership skills

26. Knows the goals of the organization.
27. An emotionally stable person.
28. Willing to take leadership responsibility.

Appendix 3: Open-ended Questions on Strengths and Weaknesses of Interns

State any weaknesses of the intern:

State any strengths of the intern:

Appendix 4: Qualitative Responses from Employers

NO ₁	SEM. ²	STRENGTH ³	SKILLS ³
	BAcc Dis 07		
1	1	-	-
2	1	Fast learner and hardworking	personal efficiency
3	1	Moderate	-
4	1	Menjalankan tugas dgn penuh semangat & bertanggungjawab	job attitude
5	1	Pelatih mampu menangani konflik & tekanan dgn baik & berhemah	interpersonal skills
6	1	Mempunyai kemahiran berkomunikasi & sanggup mempelajari sesuatu yang baru	communication; taking initiative
7	1	Information technology skills, fast learner	intellectual skills; personal efficiency
8	1	Bijak, cepat memahami pelajaran dan kreatif dalam hal-hal pengkomputeran	personal efficiency; intellectual skills
9	1	Good IT knowledge	intellectual skills
10	1	-	-
11	1	Good in commitment	job attitude
12	1	Cekap dalam menggunakan computer	intellectual skills
13	1	-	-
14	1	Can perform task very well. Quality of work is good and able to reduce mistakes. Eager to learn more than limit given to intern.	interpersonal skills; personal efficiency; taking initiative
15	1	Sentiasa mencari idea2 baru untuk meninggikan kualiti kerja	taking initiative
16	1	Good in discipline	job attitude
17	1	Hardworking and committed student	job attitude
18	1	Fast learner, highly motivated and can easily adapts to a working environment.	personal efficiency; job attitude
19	1	Creative, fast learner and hardworking	personal efficiency; job attitude
20	1	Very hard working and able to take instructions Need little supervision	job attitude; interpersonal skills; taking initiative

21	1	-	-
22	1	Fast learner and hardworking	personal efficiency; job attitude
23	1	Strong in personality and communication. Able to show capability in doing work	interpersonal skills; communication
24	1	Responsible, hardworking	job attitude
25	1	Good in commitment and discipline	job attitude
26	1	Hardworking and committed student	job attitude
27	1	Willing to learn and high in interpersonal skills	taking initiative; interpersonal skills
28	1	-	-
29	1	Willing to learn and take responsibility	taking initiative
30	1	Seorang yang bersemangat ingin memajukan diri dalam bidang yang diceburi dan cepat memahami	taking initiative; personal efficiency
31	1	Very hard working and able to take instructions Need little supervision	job attitude; interpersonal skills; taking initiative
32	1	Dapat menjalankan tugas dengan baik dan patuh mengikut arahan yang diminta oleh syarikat	interpersonal skills
33	1	Bersedia melakukan kerja lebih masa	taking initiative
34	1	-	-
35	1	Fast learner who can adopt to changing environment fast	personal efficiency; job attitude
36	1	Mengikut arahan yang diberikan	interpersonal skills
37	1	Fast learner	personal efficiency
38	1	-	-
39	1	Boleh menjalankan tugas dengan baik dan mematuhi arahan yang diminta oleh syarikat	personal efficiency; interpersonal skills
40	1	Ada sifat bertanya	taking initiative
41	1	Fast learner and hardworking	personal efficiency; job attitude

	DAIS Dis 07		
1		Mudah mesra dan disenangi oleh semua warga kerja di Jabatan ini	interpersonal
2	1		
3	1	Dapat berkomunikasi dengan baik dan jelas. Boleh menguasai dan menerima segala arahan kerja dan berusaha untuk meningkatkan prestasi kerja yang lebih cemerlang.	communication; interpersonal taking initiative
4	1	Mudah mempelajari sesuatu yang baru	personal efficiency
5	1		
6	1	Good follower, have discipline, good attitude.	interpersonal; personal efficiency; job attitude
7	1	A fast learner and able to work under minimum supervision	personal efficiency; taking initiative
8	1	Well behaved and takes her training seriously	job attitude
9	1	Fast learner	personal efficiency
10	1	Fast learner	personal efficiency
11	1	Fast learner	personal efficiency
12	1	Sense of urgency, cepat belajar dan berfikiran positif.	personal efficiency
13	1		
14	1	She has a very good personality and credibility and no doubt one day she's going to become a manager	interpersonal; job attitude
15	1	Berani bertanya dan mempunyai semangat ingin belajar serta dapat menjalankan tugas dengan baik.	taking initiative; personal efficiency
16	1	Beliau seorang yang berdedikasi dan sentiasa bersikap positif dalam menjalankan tugas yang diberikan.	job attitude
17	1	Mempunyai pengetahuan dalam bidang teknologi maklumat dan nampak bersedia dan bersemangat menjalankan tugas yang diberikan.	intellectual skill; job attitude
18	1		
19	1	Berupaya melaksanakan tugas dengan baik tanpa pengawasan sepenuhnya	taking initiative
20	1	Has initiative, highly motivated, fast learner, she has the right element to success.	taking initiative; job attitude; personal efficiency

21	1	Dapat berkomunikasi dengan baik dan jelas, sentiasa berusaha untuk meningkatkan prestasi yang lebih cemerlang. Boleh menguasai dan menerima segala arahan kerja yang diberi	communication; taking initiative; interpersonal
	DAIS Jun 08		
1		-	
2	2	-	
3	2	She is very creative person, hardworking, proactive and responsible to our company	taking initiative; job attitude
4	2	Strives for excellence	taking initiative
5	2	Pelatih telah menunjukkan komitmen yang tinggi dalam tugas yang diamanahkan kepadanya dan pencapaiannya amat cemerlang	job attitude; personal efficiency
6	2	Menjalankan tugas dengan penuh tanggungjawab	job attitude
7	2	Mempunyai semangat yang tinggi dan jitu untuk melaksanakan tugas yang diberikan	job attitude
8	2	Has interest to learn, hardworking and able to complete the assigned task on time	job attitude
9	2	Fairly competitive person and has no problem to work with colleges as well as fast learner	interpersonal; personal efficiency
10	2	Pelatih mempunyai keupayaan berkomunikasi yang baik dengan pihak atasan, rakan sekerja dan pelanggan. Pelatih juga mampu memahami tugas dengan baik dan seorang yang berinsiatif	communication; taking initiative; personal efficiency
11	2	-	
12	2	-	
13	2	Sanggup menerima dan melaksanakan tugas yang diberi	job attitude
14	2	Membuat kerja dengan teratur dan boleh membahagikan kerja dengan lebih efektif	personal efficiency
15	2	Berdikari	taking initiative
16	2	-	
17	2	-	
18	2	She has a good attitude towards task given	job attitude
19	2	-	
20	2	Mampu menghasilkan kerja yang berkualiti	personal efficiency
21	2	Kerjasama dengan rakan-rakan sekerja adalah baik	Interpersonal
22	2	-	
23	2	Pelatih sentiasa ingin bekerja dan bertanya kepada kakitangan segala masalah atau perkara yang tidak difahami dan dikehendaki Sentiasa mencari bahan rujukan	taking initiative; intellectual
24	2	Boleh bekerja dalam kumpulan dengan sedikit pengawasan	taking initiative
25	2	Rajin dan berdedikasi	job attitude

26	2	Friendly, fast learner, good attitude	interpersonal; personal efficiency; job attitude
27	2	-	
28	2	-	
29	2	Ilmu IT	intellectual
30	2	She is very hardworking and easy to deal with	job attitude; interpersonal
31	2	Pelatih sedia menerima apa-apa arahan dan dapat melakukannya dengan baik serta sedia menerima nasihat yang membina	taking initiative
32	2	Pelatih seorang yang disenangi oleh semua kakitangan, bijak menyesuaikan diri dengan persekitaran dan sedia menerima dan memberi nasihat yang berguna	interpersonal; communication
33	2	Pelatih disenangi oleh semua kakitangan, bijak menyesuaikan diri dengan persekitaran, mempunyai komitmen, berdisiplin dan boleh mencapai kemajuan yang lebih jauh dalam kerjaya	interpersonal; communication
34	2	Mempunyai tahap kesabaran yang tinggi dan mampu melaksanakan tugas dengan baik	leadership; job attitude
35	2	-	
36	2	Willing to take up challenge and learn new things	taking initiative
37	2	Focused while doing her task and proper appearance	job attitude
38	2	Bertanggungjawab terhadap tugas yang diberikan	job attitude
39	2	Fast learner and responsible	job attitude; personal efficiency
40	2	-	
41	2	Bersungguh-sungguh dalam melakukan kerja. Bersikap terbuka apabila menerima tugas. Seorang yang berdedikasi.	job attitude
42	2	Mampu melaksanakan tugas –tugas dengan sempurna walaupun di dalam keadaan tertekan	job attitude
43	2	Memiliki tahap etika kerja yang tinggi	intellectual
44	2	Mempunyai peradaban yang tinggi	intellectual
45	2	Seorang pelajar yang committed dengan tugas-tugas yang diberikan kepadanya	job attitude
46	2	Berdisiplin, mematuhi arahan serta mempunyai komitmen terhadap tugas	interpersonal; job attitude
47	2	Boleh menulis aturcara dengan baik	intellectual
48	2	Kerjasama yang baik	Interpersonal
49	2	Seseorang yang tidak mudah melatah dan sentiasa mencuba untuk memberikan hasil yang terbaik. Rajin	taking initiative; job attitude
50	2	Hard working, dedicated and accountable, capable of working alone and in a team	taking initiative; job attitude; interpersonal

51	2	Dia seorang yang cekap dalam melaksanakan tugas dan berpotensi untuk Berjaya di masa hadapan	personal efficiency
52	2	-	
53	2	-	
54	2	Mempunyai komitmen yang tinggi terhadap kerja yang ditugaskan dan mempunyai kerativiti dalam melaksanakan tugas	job attitude; taking initiative
55	2	Hardworking and punctual person	job attitude
56	2	Doing well in any task given and a positive learner	Interpersonal; taking initiative
57	2	Hardworking person, hyper active	job attitude
58	2	Kerjasama dengan rakan sekerja baik	interpersonal
	DAIS Jun 09		
1	4	-	
2	4	She is fast learner and highly motivated to complete the task given	personal efficiency; job attitude
3	4	Honest, committed and very helpful. Able to work under pressure and able to make a decision with minimal supervision	taking initiative; job attitude
4	4	Punctual and discipline	job attitude
5	4	Able to work in a group with minimal supervision	taking initiative; interpersonal
6	4	-	
7	4	-	
8	4	Has good working attitude	job attitude
9	4	Has good attitude towards people	Interpersonal
10	4	Willing to learn. Creative, full of motivation, good ethics, very co-operative, communicates well with others. Good job! Well done!!	taking initiative; job attitude; interpersonal; communication
	BAcc Jun 09		
1		Mempunyai sikap kepimpinan dan mampu menjalankan tugas dengan baik	leadership job attitude
2	4	Dapat menangani tekanan kerja dengan baik	job attitude
3	4	Menjalankan setiap tugas yang diberikan tanpa melengahkan waktu	job attitude
4	4	-	
5	4	-	
6	4	The intern is dedicated in performing her duties to complete the task within the stipulated period and is committed to the work provided	job attitude
7	4	-	
8	4	-	
9	4	-	

10	4	Beliau adalah seorang pelajar yang mempunyai ciri-ciri mudah memahami, pengawasan kerja yang minima dan bertanggungjawab	personal efficiency; taking initiative; job attitude
11	4	Beliau seorang pelatih yang mampu bekerja di bawah tekanan, dedikasi dan bertanggungjawab	job attitude
12	4	Beliau adalah seorang yang bertanggungjawab, mudah memahami tugas dan dedikasi	job attitude; personal efficiency
13	4	-	
14	4	-	
15	4	Mudah menangkap/memahami perkara yang disampaikan	personal efficiency
16	4	Able to communicate with colleagues and clients. Able to listen well to instructions and act accordingly	interpersonal; communication
17	4	-	
18	4	Cepat memahami tugas yang diberikan. Tidak mengeluh walau dibebani dengan pelbagai tugas	personal efficiency; job attitude
19	4	Seorang yang sentiasa bersedia diberi tugas dan tanggungjawab	job attitude
	BAcc Jun08		
1	2	Able to adopt to company culture and teamwork	interpersonal; job attitude
2	2	IT knowledge	intellectual skill
3	2		
4	2		
5	2	Very hardworking, good attitude, able to learn fast and effective	job attitude; personal efficiency
	2		
6	2	Able to work independently	taking initiative
7	2	Easily understand given task, able to work under minimal supervision	personal efficiency; taking initiative
8	2	Mampu menyesuaikan diri di mana sahaja dan sentiasa mematuhi arahan	job attitude; interpersonal skill
9	2		
10	2	Understands basic knowledge in audit and tax. Easy to give job to her and easily completed it.	intellectual; taking initiative
11	2	Independent and ambitious person	taking initiative
12	2		
13	2	Leadership skills- lead and guide other new staff in audit field	leadership skills

14	2	Knowledge in basic audit and tax. Easily completes task given.	Intellectual; personal efficiency
15	2		
16	2	Responsible, able to work under minimal supervision	taking initiative
17	2		
18	2	Responsible, able to work under minimal supervision	taking initiative
	BAcc Dis08		
1	3	Good commitment	job attitude
2	3	Intelligent and hardworking	Intellectual; Job attitude
3	3		
4	3	Works very well, perform training with effectiveness	interpersonal; Personal efficiency
5	3	Responsible for given task, very punctual	job attitude
6	3		
7	3	Hardworking and good discipline	Job attitude
8	3		
9	3		
10	3	Highly motivated to complete task under minimal supervision	job attitude; taking initiative
11	3	Highly motivated to complete task under minimal supervision	job attitude; Taking initiative
12	3		
13	3		
14	3		
15	3	Fast learner, creative, independent, able to give own opinion and suggestion	personal efficiency; taking initiative
16	3	Hardworking, responsible, willing to learn and concentrate on work	job attitude; taking initiative
17	3	Good written English	communication
18	3	Hardworking student	job attitude
19	3	Able to complete work within given time	personal efficiency
20	3	Strong IT knowledge	intellectual skill
21	3		
22	3	Keen to learn	taking initiative
23	3	A disciplined and punctual intern	job attitude
24	3	Able to make decisions when necessary, good IT knowledge	intellectual skill

	DAIS Dis08		
1	3	Good IT knowledge	intellectual skill
2	3		
3	3		
4	3	Very hardworking, completes work within given time	job attitude; taking initiative
5	3	Hardworking and does any work given	job attitude
6	3	Pleasant personality and able to work with minimum supervision	taking initiative
7	3	Mempunyai pengetahuan yg tinggi dalam sistem UBS dan kemahiran teknologi komputer.	intellectual skill
8	3	Prestasi cemerlang semasa praktikal	personal efficiency
9	3		
10	3	Bertanggung jawab,berminat,bersungguh utk mendalami sesuatu perkara baru.	taking initiative; job attitude
11	3	tenang menerima teguran dan tunjuk ajar, akhlak yg baik	interpersonal
12	3	Able to adopt to company culture & teamwork	interpersonal skills
13	3	IT knowledge	intellectual skill

NO¹	SEM.²	WEAKNESSES³	SKILLS³
	BAcc Dis07		
1	1	-	-
2	1	-	-
3	1	-	-
4	1	Tiada	-
5	1	Pelatih agak sukar mengaplikasikan teori di dalam praktikal & sukar menjelaskan idea dgn berkesan & mudah difahami	intellectual communication
6	1	-	-
7	1	Communication skills Writing skills	communication
8	1	Pelajar lebih berdikari, berani mencuba ditahap tinggi tetapi kadangkala gagal mengingati kes-kes keutamaan. Kadangkala tergesa-gesa untuk mendalami ilmu yang baru	taking initiative
9	1	Poor time management. Poor commitment.	job attitude
10	1	-	-
11	1	Too shy and less self-initiative	taking initiative
12	1	-	-
13	1	-	-
14	1	Need more communication skills and personality skills. Incapable to compete with other co-workers in performing work	Communication; Interpersonal
15	1	-	-
16	1	Too shy and less self-initiative	taking initiative
17	1	-	-
18	1	Intern must be prepared to be a leader in an organization	leadership skills
19	1	Need to be more confident and serious in order to express the idea and making decisions	leadership skills
20	1	Time management could be an area to be considered	taking initiative
21	1	Very seldom refers to Standards when problems arise. Not familiar with MIA-by- laws	intellectual skills
22	1	Need to be more confident and serious in order to express the idea and making decisions	leadership skills
23	1	Quality of work a bit weak	personal efficiency
24	1	Could have possessed better command of English	Communication
25	1	Too shy and less self-initiative	taking initiative
26	1	-	-
27	1	-	-
28	1	Kurang arif untuk mengejar masa	taking initiative
29	1	-	-
30	1	-	-
31	1	Time management could be an area to be considered	taking initiative
32	1	-	-
33	1	-	-
34	1	-	-
35	1	Could have improved on English and punctuality	Communication

			job attitude
36	1	Tidak begitu kreatif – tidak dapat mengaitkan teori yang dipelajari dengan praktikal. Agak pendiam dan kurang keyakinan diri.	Intellectual; communication
37	1	Unable to handle more work at one time	taking initiative
38	1	-	-
39	1	-	-
40	1	-	-
41	1	-	-
	DAIS Dis07		
1	1		
2	1		
3	1		
4	1		
5	1		
6	1	Lack of self-confidence, less initiative	taking initiative
7	1	Try to be more punctual	job attitude
8	1	Lacking confidence in communicating in English	Communication
9	1		
10	1		
11	1		
12	1		
13	1	Pelatih lebih bersikap rezab dan agak kurang menyerlah.	interpersonal
14	1		
15	1		
16	1	Beliau masih belum dapat menonjolkan bakat kepimpinan tapi dengan pengetahuan dan pengalaman yang dibentuk dari masa ke semasa beliau dapat membentuk bakat kepimpinan	Leadership
17	1		
18	1		
19	1		
20	1		
21	1		
	DAIS Jun08		
1	2	-	
2	2	-	
3	2	-	
4	2	-	
5	2	-	
6	2	-	
7	2	-	
8	2	-	
9	2	-	
10	2	-	
11	2	-	
12	2	-	
13	2	-	

14	2	-	
15	2		
16	2	-	
17	2	-	
18	2	-	
19	2	-	
20	2	-	
21	2	Kurang pro-aktif	taking initiative
22	2	-	
23	2	-	
24	2	-	
25	2	-	
26	2	-	
27	2	-	
28	2	-	
29	2	-	
30	2	-	
31	2	Kurang pendedahan berkaitan isu-isu semasa	intellectual
32	2	Kurang pendedahan berkaitan isu-isu semasa	intellectual
33	2	Kurang pendedahan berkaitan isu-isu semasa	intellectual
34	2	-	
35	2	-	
36	2		
37	2	-	
38	2	-	
39	2	-	
40	2	-	
41	2	-	
42	2	-	
43	2	Tiada pendedahan audit dalaman di universiti	intellectual
44	2	Tiada pendedahan awal di Universiti tentang audit dalaman	intellectual
45	2	-	
46	2		
47	2	-	
48	2	-	
49	2	-	
50	2	-	
51	2	-	
52	2	-	
53	2	-	
54	2		
55	2	-	
56	2	-	
57	2	-	
58	2	Kurang pro-aktif dan kurang bertanya	taking initiative
	BAcc Jun09		
1		-	
2	4	-	
3	4	-	

4	4	-	
5	4	-	
6	4	-	
7	4	-	
8	4	Kurang keyakinan diri dan komunikasi	Interpersonal; communication
9	4	Kadang-kadang tidak menunjukkan minat dalam bidang/kerja yang diberikan	job attitude
10	4	-	
11	4	-	
12	4	-	
13	4	-	
14	4	-	
15	4	Mudah mengalah, daya tahan kurang	job attitude
16	4		
17	4	-	
18	4		
19	4	-	
1	DAIS Jun09	-	
2	4	-	
3	4	A bit emotional but still manageable	leadership
4	4	-	
5	4	Too quiet	interpersonal
6	4	-	
7	4	-	
8	4	-	
9	4	-	
10	4	-	
	BAcc Jun08		
1	1		
2	1		
3	1		
4	1		
5	1		
6	1		
7	1		
8	1		
9	1		
10	1		
11	1		
12	1		
13	1		
14	1		
15	1		
16	1		
17	1		
18	1		

	BAcc Dis08		
1	3	Pregnant-cannot do job as expected	personal efficiency
2	3		
3	3	Quiet character	communication
4	3	Early pregnancy-cannot do job as expected	personal efficiency
5	3		
6	3	Shy and afraid of client	Communication;
7	3	Low self initiative	taking initiative
8	3		
9	3		
10	3		
11	3		
12	3		
13	3		
14	3		
15	3		
16	3	Lack of accounting knowledge	intellectual
17	3		
18	3	Lack of communication skill	communication
19	3		
20	3		
21	3		
22	3		
23	3		
24			
	DAIS Dis07		
1		Leadership skill	leadership
2			
3			
4		Lack of communication with other staff	interpersonal
5			
6		Interpersonal skill with other staff	interpersonal
7			
8			
9			
10			
11		Kurang komunikasi-pendiam	communication
12			
13			

Notes for Appendix 4:

1. NO. represents student number
2. SEM. Represents semester
3. Blank rows under STRENGTHS, WEAKNESSES and SKILLS indicate no responses.

7.0 AUTHORS

Ms Yunita Awang is a senior lecturer at the Faculty of Accountancy, Universiti Teknologi MARA Terengganu since 1998. Her core academic teaching subjects include financial accounting, accounting theory and practice. She graduated from University of Lancaster, United Kingdom and worked as a bank cum accounts officer at Bank Islam (M) Bhd from 1995 to 1997. She obtained her Master of Accountancy from UiTM. Her areas of research interest include sustainability reporting, Islamic accounting, management and job satisfaction, Ms Yunita has presented several papers at international and national conferences held in Malaysia. She is an Associate Member of the Malaysian Institute of Accountants.

Ms Rohana Yusoff is a senior lecturer in statistics at the Faculty of Computer and Mathematical Sciences, UiTM Terengganu. She has been teaching for more than 20 years in statistics. She graduated from University of Adelaide, South Australia. She obtained her Executive Master in Business Administration from UiTM. Her areas of interests are statistical education, instrument/ questionnaire development, management and job satisfaction. Ms Rohana has conducted workshops for researchers in developing instrument for lecturing evaluation and job satisfaction and has presented papers at several international conferences.

Ms Inayah Abdul Aziz has been a lecturer at the Faculty of Accountancy, UiTM Terengganu since 1999. Her core academic teaching subjects include taxation and financial accounting. She graduated from Universiti Utara Malaysia and worked as a bank officer at Maybank (M) Bhd for two years. She obtained her Master of Accountancy from UiTM. Her areas of interests are accounting education and corporate social responsibility. Ms Inayah is an Associate member of the Malaysian Institute of Accountants.

Ms Yusliena Yusoff is a senior lecturer currently attached to the Faculty of Accountancy, UiTM Terengganu. She obtained her Degree and Master in Accountancy from UiTM. Her areas of interest are financial accounting and reporting and accounting education. Ms Yusliena has taught various accountancy courses at diploma and degree level for about 10 years.



**MALAYSIAN INSTITUTE
OF ACCOUNTANTS**
ACCOUNTANTS: MANAGERS OF VALUE

Dewan Akauntan
No. 2, Jalan Tun Sambanthan 3
Brickfields, 50470 Kuala Lumpur
Malaysia

[phone] +603 2279 9200
[web] www.mia.org.my

[fax] +603 2274 1316
[email] paib@mia.org.my