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Intellectual Capital Disclosure Emphasis: An Analysis of Malaysian Annual Reports

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Intellectual capital disclosure within the annual report has increased in frequency and types over the last few years. Despite this growth, relatively little is known about the incentives or motivations behind such reporting practices. Further, their unregulated nature means that management has great discretion when reporting. This paper adds to research in this topical area. This study aims to examine the presentation of annual reports with respect to intellectual capital disclosure particularly when firms are driven by capital-raising motive. We focus on the top 100 Malaysian firms in 2010. Data from annual reports is hand-collected to determine the intellectual capital disclosure practice. The findings, which support signalling theory, provide evidence that capital-raisers report more intellectual capital compared to their non-capital-raiser counterparts. These capital-raiser firms emphasise intellectual capital information by positioning information in the headline, in special character and fonts and through repetition. This is consistent with the motivation to provide intellectual capital information that investors will not only recognise but that they will also retain and recall when making investment decisions.

Keywords: Intellectual capital, capital-raising, annual reports, presentation emphasis

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1. Introduction

The purpose of this study is to examine the presentation of annual reports with respect to intellectual capital (IC) disclosure particularly when firms are driven by capital-raising motive. IC have been recognised as the most important value drivers in the current economy in ensuring a firm's survival, its competitive position and its future growth (Bontis, Chong and Richardson 2000; Canibano, Garcia-Ayuso and Sanchez 2000; Firer and Williams 2003; Sonnier, Carson and Carson 2008; Yongvanich and Guthrie 2005). It has been argued that the increasing importance of IC is associated with a shift in the economy from the industrial economy to the new economy. Seetharaman et al. (2002) have proposed how 'p-economy' (production orientated) differs from 'k-economy' (knowledge-based). In the 'p-economy', hard assets such as labour, capital and land were regarded as the important factors of production to determine the value of corporations (Drucker 1993; Firer and Williams 2003). The 'k-economy', on the other hand, has been variably described as the post-industrial economy; new economy; service economy; knowledge society; knowledge-intensive economy; new industrial age; information age; or idea era (Upton 2001). The development of IC such as knowledge assets, human capital, customer satisfaction and

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organisational information systems has taken over the traditional factors of production as the most important resources for a corporation's survival (Bukh, Nielsen, Gormsen and Mouritsen 2005; Stewart 2001).

In Malaysia, one of the key determinants in the achievement of the Ninth Malaysia Plan's objectives is the development and enhancement of competent and knowledgeable human capital. To be competitive in the global market, various programs and projects have been undertaken such as improving the education system, increasing innovation and ensuring holistic human capital development. Therefore, to be a progressive developing country, Malaysia has to effectively create wealth by developing and managing knowledge. By focusing on IC such as employees, customers and activities that contribute to value chain helps to identify, measure and report the value of IC. However, there are arguments that the current financial reporting framework is insufficient to keep pace with changes in the business world, particularly in capturing IC information (Bontis *et al.* 2000; Canibano *et al.* 2000; Sonnier *et al.* 2008). Among issues that have been discussed is the lack of reporting of IC especially in financial reports of companies.

Worldwide, there is an increase in research in IC disclosure with focus on developed countries, public listed companies and on management control (Guthrie, Ricceri and Dumay 2012). A growing trend of IC studies is observed in Malaysia particularly (Haji and Ghazali 2012) and therefore, the present study is considered timely. This study is motivated by the assumption that a strategy of voluntary disclosure of information has considerable potential for changing investors' perceptions of a firm especially information relating to IC. Therefore, this study seeks to determine the emphasis of IC information in terms of presentation; particularly its visual representation, special characters and type of font and repetition of information.

The remainder of the paper is structured as follows: the next section discusses prior literature relating to voluntary disclosure and capital-raising. Section 3 focuses on the methodology adopted for the study, together with the sample selection and data. Section 4 discusses the findings and Section 5 presents a conclusion and suggestions for future research.

2. Literature Review

Studies into the reporting of IC have gained much interest among academics, practitioners and policy-makers and the literature on IC disclosure is expanding; from a mere description of the disclosure practices in various regions over time, to the association between the level of disclosure and the firm's specific factors and capital market consequences. The first strand of literature provides an overview of IC disclosure in terms of what and how much IC information is disclosed by firm in various regions. Among the studies are Australia (Bruggen, Vergauwen and Dao 2009; Guthrie and Petty 2000; Sujan and Abeysekera 2007), Ireland (Brennan 2001), New Zealand (Steenkamp 2007; Whiting and Miller 2008), the Netherlands, France and Germany (Vergauwen and Alem 2005) and Malaysia (Foong, Loo and Balawaman 2009; Goh and Lim 2004). For example, Sujan and Abeysekera (2007) found that the overall IC information was reported quantitatively with external capital such customers, business collaborations and brands being the most disclosed items. In contrast, Steenkamp (2007) found that firms report IC qualitatively with pictures in the annual reports.

Another strand of literature focuses on the determinants of disclosure such as firm size (Bruggen *et al.* 2009; Bukh *et al.* 2005; Garcia-Meca, Parra, Larran and Martinez 2005), industry (Bozzolan, Favotto and Ricceri 2003; Oliveira, Rodriguez and Craig 2006) and corporate governance factors (Cerbioni and Parbonetti 2007; Oliveira *et al.* 2006). For example, Bozzolan et al. (2003), Oliveira et al. (2006) and Bruggen et al. (2009) found that industry type plays an important role in the disclosure behaviour of a firm as high-tech industries were among the industries aggressively provided IC information.

An, Davey and Eggleton (2011) integrate legitimacy and signalling theory by arguing that firms should report IC information in order to signal that they are complying with societal expectations and norms. In this case, signalling would make investors and other stakeholders reassess the value of the company and then make decisions more favourable to the company (Abeysekera and Guthrie 2005; Whiting and Miller 2008). Among other motives that lead managers to increase their voluntary disclosure is the intention to issue equity (Healy and Palepu 2001; Lang and Lundholm 2000; Myers and Majluf 1984). This is evidenced by a positive correlation between the need to access the capital market and the disclosure output. Research has examined the frequency of management forecasts (Frankel, McNichols and Wilson 1995; Ruland, Tung and George 1990); analyst ratings of disclosure quality (Lang and Lundholm 1993); the level of information asymmetry (Dierkens 1991; Petersen and Plenborg 2006); the quality of Management Discussion and Analysis section in annual reports (Clarkson, Kao and Richardson 1994); and the use of conference calls (Frankel *et al.* 1995) to indicate the disclosure behaviour of firms having capital-raising activity.

Despite wide acknowledgement that the level of information asymmetry is high between issuing firms and potential investors (Gerpott, Thomas and Hoffman 2008; Jones 2007), very few studies have addressed the IC reporting practices of listed firms before capital-raising. In responding to calls to provide more evidence on the relationship between specific managerial decisions and disclosure strategies (Williams 2008), we adopt both legitimacy and signalling theory perspective in examining the IC disclosure in Malaysia.

Building on prior empirical studies that documented that firms are more forthcoming in disclosing additional information prior to the registration of the equity offerings, we expect that the variety, amount and of IC disclosure in Malaysia can be explained by the intention to raise additional capital. Drawing ideas from impression management literature which provides evidence that some impression management tools create a favourable impression, it is expected that some impression management tools would also have a role in signalling information. That is, managers can utilise techniques such as visual effects and presentation emphasis when signalling important information to draw a reader’s attention and, thus, create a stronger signal. Therefore, readers of corporate reports are more able to perceive, absorb and retain information signalled in obvious and strong ways which, in turn, facilitates their decision-making.

Therefore, this study utilises some impression management techniques particularly analysis of presentation emphasis. Analysis of emphasis is an impression management tool that assumes reader notices the information emphasised more ((Brennan, Guillamon-Saorin and Pierce 2009). This study examines aspects of IC disclosure by focusing on the following research questions:

1. What are the variety, extent and emphasis of IC disclosure in annual reports of capital-raiser and non-capital raiser firms?
2. Do the variety, extent and emphasis of IC disclosure differ between capital-raiser and non-capital raiser firms?

To answer the research questions, the following hypotheses are proposed:

H1: The variety of IC disclosure in the annual reports is higher in capital-raiser firms compared to non-capital-raiser firms

H2: The amount of IC disclosure in the annual reports is higher in capital-raiser firms compared to non-capital-raiser firms

H3: Capital-raiser-firms provide more emphasis on IC information in the annual report compared to non-capital-raiser firms

3. Methodology

The data consist of the annual reports of the top 100 Malaysian companies which had secondary equity-raising activities in 2011. In the selection process, firms listed on Bursa Malaysia were first narrowed down to the largest firm based on market capitalisation at 31 December 2010. Market capitalisation is the market value of a company’s equity capital and is calculated by multiplying the number of common shares by the current price as at 31 December each year. The selection of largest firms is consistent with prior studies (Bruggen *et al.* 2009; Guthrie and Petty 2000; Guthrie, Petty and Ricceri 2006) that larger firms might possess more IC resources and for that reason, they are more inclined to disclose a wide variety of IC. The list of top 100 companies in 2010 was narrowed down to those raising capital with the issuance of a full prospectus in 2011 which consisted of 30 companies. The matched-pair process began with the remaining top 100 firms which were not capital-raisers. The capital-raiser firms selected earlier were matched with the non-capital-raiser firms based on industry type according to the Global Industry Classification Standard (GICS) sectors.

Next, the non-capital-raiser firms were matched based on their market capitalisation. The final sample for the study consists of 30 capital-raiser firms with their matching non-capital-raiser firms. The capital-raiser firms and non-capital-raiser firms had the same industry code in all cases. Capital-raiser firms had an average of RM14 billion in market capitalisation compared to RM11 billion in market capitalisation for the matched non-capital-raiser firms. An independent sample t-test showed that there was no significant difference in the size of the matched-pair samples (*p=0.521*).

Content analysis was used to collect and analyse the data. It is a research technique for making replicable and valid inferences from texts to the context of their use (Krippendorf 2004). For content analysis to be effective, the categories of classification must be clearly defined (Guthrie, Petty, Yongvanich and Ricceri 2004). Following this, a review of relevant literature was conducted to ensure that the categories selected for the study are able to capture IC information. In developing the checklist, disclosure indices based on Lev's (2001), Guthrie and Petty's (2000) and Abdul Halim and Jaafar (2012) were utilised and modified to reflect the local setting. The disclosure index was classified into 24 items across three categories and are used to capture the variety, amount and form of disclosure (see Table 1). Coded using dichotomous scale, a company receives a score of 1 if it disclosed IC and 0 if no item is reported. Since the index has 24 items, the maximum possible score for variety is 24. This approach is considered reasonable because the purpose of coding the variety of disclosure was to capture the theme of IC signalled by companies rather than the importance of the items disclosed.

A test-retest of the coding was done by the first author from randomly selected 12 annual reports. In addition to that, to ensure reliability of the coder, a research assistant was appointed to code 10% of the sample. On completion of the recoding, the results were considered in detail and any discrepancies were resolved by examining the documents further. In this study, we used sentences as the unit of measurement as opposed to words or paragraph. This is because sentences enable researcher to establish precise meaning about a particular disclosure (Abeysekera and Guthrie 2005). More importantly, the use of sentences provides complete, reliable and meaningful data for further analysis (Milne and Adler 1999).

The amount of disclosure is measured by counting the number of sentences for textual disclosure and captions/titles/row for visual disclosures (Abdul Halim and Jaafar 2012). To arrive at the amount of disclosure for each company, the frequencies of occurrence are aggregated. Each piece of coded information is then analysed to determine its presentation emphasis. The analysis of emphasis is done through emphasis techniques which are: 1) visual representation; 2) positioning of information; 3) special characters and type of font; and 4) repetition. Visual disclosures include pictures and photographs, tables, graphs and charts. Since visuals are sometimes more influential than textual information because big pictorial spreads are eye-catching items; firms sometimes use pictures to add flesh to corporate identity and emphasise markets, products and other aspects of a company's life (Davison 2008; Hooper and Low 2001; Unerman 2000). In this study, consistent with (Beattie and Jones 1992; Davison and Skerrat 2007; Unerman 2000), visual representations are regarded as more intense communication tools compared to textual disclosures. Information located in the headlines and in special characters is regarded as more intense as compared to information featured in the body of text and in plain text. Repeated information is also considered as more intense and as firms choose to repeat important information so that the readers do not miss the message. Therefore, visual representations and IC information that is emphasised is scored 1. The scores for emphasis are totalled to arrive at the overall emphasis score for each company.

4. Results

Table 1 shows that the discovery and learning phase recorded the highest number of disclosures of 2,413 and information about employees dominates the category with 1,052 disclosures. The sample companies put significant value to their employees by featuring them in the annual reports. For example, Company A, a trading and services firm disclosed the following sentence about its employees.

> “A sincere thank you to every employees of the Group for the enthusiasm and talent they have shown in driving the business forward.”

[Company A Annual Report 2010, p.27]

Besides employees, management philosophy and corporate culture is also among the most reported item in annual reports. For example, Company B, a trading and services company, shared the following goal with the public.

> “In line with our Vision to be the preferred healthcare provider, our goal is to provide excellent service to all our customers at all times.”

[Company B Annual Report 2010, p.29]

The sample companies also disclosed information about organisational infrastructure and processes in their annual reports. For example, Company C disclosed the following information about its customer relationship module.

> “The MRCB myCRM customer relationship management module only allows certain high level customer relationship managers access to data and customer contact list.”

[Company C Annual Report 2010, p.8]

The next most disclosed category is the commercialisation phase with 1,646 disclosures and is dominated by customers and customer satisfaction with 1099 disclosures. For example, Company D disclosed the following information regarding its customers.

> “Today we have 4.2 million mobile internet users and foresee an uptrend in demand for internet from both existing and new customers.”

[Company D Annual Report 2010, p.20]

The results tabulated in Table 1 is consistent with prior IC disclosure studies that the most widely disclosed information is customers and employees (Abeysekera and Guthrie 2005; Goh and Lim 2004; Guthrie and Petty 2000; Haji and Ghazali 2012).

Table 1: Number of IC disclosures

IC item	Number of disclosures	Rank	%
Discovery and learning			
Research and development	137	10	3.1
Organisational infrastructure/process	307	5	6.9
Management philosophy and corporate culture	336	4	7.5
Business alliances and joint venture	208	8	4.7
Supplier integration	2	22	0.04
Communities of practice	50	12	1.1
Spill-over utilisation	4	20	0.1
Employees	1052	2	23.5
Training and development of employees	262	6	5.9
Education of employees	29	14	0.65
Work-related knowledge and competencies	1	24	0.02
Entrepreneurial spirit	25	16	0.56
Total for discovery and learning	***2,413***		
Implementation			
Intellectual property (Patents, Trademarks and Copyrights)	10	18	0.22
Licensing agreements and contracts	10	18	0.22
Know-how	29	14	0.65
Internet and online activities	357	3	7.99
Clinical tests, beta tests and pilot tests	4	20	0.09
Total for implementation	***410***		
Commercialisation			
Brand values and reputation	216	7	4.83
Distribution channel and marketing	82	11	1.83
Customer and customer satisfaction	1099	1	24.59
Market shares	195	9	4.36
Growth prospects and planned initiatives	38	13	0.85
Product pipeline dates	2	22	0.04
Expected efficiency and savings	14	17	0.31
Total for commercialisation	***1,646***		
Total	**4,469**		**100**
Total number of pages surveyed	**2,660**		
Average disclosure per page	**1.68**		

Out of 24 items, capital-raiser firms disclose a greater variety of information with an average disclosure score of 9.40 as compared to their non-capital-raiser counterparts with a mean score of 5.17. A Mann-Whitney U test indicates that the difference between capital-raiser and non-capital-raiser firms in terms of their variety of disclosure of IC is statistically significant. Capital-raiser firms also disclosed a higher amount of IC. On average, capital-raiser firms disclosed 54 IC information per annual report whereas non-capital-raiser firms recorded 41 disclosures. The Mann-Whitney U test indicates that the difference between capital-raiser and non-capital-raiser firms in terms of their amount of IC disclosure is also statistically significant (Table 2).

Table 3 and 4 show the number of disclosures based on emphasis. It can be seen from the table that capital-raiser firms disclosed a higher number of visual disclosures, a higher number of quantitative disclosures and a higher amount of emphasis of information compared to non-capital-raiser firms. To control for the differences in the amount of disclosures each company has, we measured the emphasis score in proportion to its amount of disclosure. This is because two companies with the same absolute emphasis scores may have vastly different amount of disclosure. (A company that recorded 40 sentences in the amount of disclosure and scored 10 for its emphasis may have its relative emphasis score of 0.25 and a company that recorded 10 sentences in the amount of disclosure and also scored 10 for its emphasis may receive a relative score of 1, which is higher).

Table 2: Descriptive statistics: Variety and Amount of Disclosure

Descriptive Statistics	Capital-raiser firms	Non-capital-raiser firms
Variety		
Mean (item)	9.40	5.17*
SD	3.047	2.601
Minimum number of intangible item disclosed	4	1
Maximum number of intangible item disclosed	17	11
Amount		
Mean (sentences)	53.77	41.43**
SD	37.00	38.439
Minimum sentences disclosed	11	2
Maximum sentences disclosed	194	147

Table 3: Number of disclosures based on emphasis

Emphasis	Total number of disclosure	% of total disclosure
Visual representation:		
Graphs/charts	6	0.13%
Tables	42	0.94%
Figures/diagrams	5	0.11%
Pictures/photographs	165	3.69%
Position: Headlines	56	1.25%
Special characters and type of font:		
Bullet points, numbered lists, bold text, italic, underlines	405	9.06%
Repetition	17	0.38%

Table 4: Number of disclosures based on emphasis

Emphasis	Number of disclosures	
	Capital-raiser firms	Non-capital-raiser firms
Visual representation:		
Graphs/charts	1	5
Tables	8	34
Figures/diagrams	5	-
Pictures/photographs	101	64
Position: Headlines	36	20
Special characters and type of font:		
Bullet points, numbered lists, bold text, italic, underlines	219	186
Repetition	13	4

Table 5 presents the descriptive statistics and the result of testing H3. Based on the total relative emphasis scores, Mann-Whitney U test indicates that the difference between capital-raiser and non-capital-raiser firms is statistically significant. This significant difference was contributed by quantitative disclosures and emphasis through positioning of information as presented in Table 5 and 6. The results is consistent with a view that firms competing for funds not only make use of voluntary disclosure but also provide a wide variety of voluntary information (Singh and Zahn 2008).

Table 5: Descriptive Statistics: Emphasis of information

	Absolute score		Relative score	
Descriptive statistics	Capital-raiser firms	Non-capital-raiser firms	Capital-raiser firms	Non-capital-raiser firms
Mean	20.53	15.33*	0.3750	0.3197^
SD	19.364	22.035	0.174	0.29
Minimum scores	3	0	0.10	0.00
Maximum scores	104	113	0.9	1.40

**Difference is significant, p=0.037*
^Difference is significant, p=0.05

Featured below are some of the examples of intangibles information presented by firms in their annual reports using various emphasis. Example 1 presents information about *employees*; and example 2 presents information about *organisational infrastructure and business processes* which are all presented in photographs. Examples 3, 4 and 5 present the utilisation of emphasis through positioning and repetition of information.

Example 1: Photograph (employees)

From left to right: Adzhar Ibrahim, Amir Faezal bin Zakaria, Evelyn Koh, Lau Kin Choy, V. Raman Narayanan

Company E Annual Report 2010, p. 51

Example 2: Photograph (organisational infrastructure and process)
 *"Company F offers a variety of technical and management programmes to suit the specific needs of staff, customers and the general public"*
COMPANY F Annual Report 2010, p.76

Example 3: Emphasis through special characters (training and development of employees)
➢ **Provide adequate skills and knowledge to all levels of personnel through systematic and structured training programmes**
Company G Annual Report 2010, p5

Example 4: Emphasis through special characters (customer and customer satisfaction)
customer relationship management
Company H Annual Report 2010, p.55

Example 5: Repetition (organisational structure and business processes)
This information was featured in the headline: *"***The Group has moved almost all customer service processes to a paperless, online model.***"* The same piece of information was repeated again in the body of the text: *"*The Group has moved almost all customer service processes to a paperless, online model.*"*
(Company I Annual Report 2010, p.22)

5. Conclusion

The objective of this study was to examine the variety, amount and emphasis of IC disclosures in annual reports of Malaysian listed companies. In general, Malaysian companies disclosed IC information using pictures, images and information in special characters besides information in plain text. In signalling IC information, Malaysia's capital-raiser firms utilised strong signals such as quantitative information and positioning of information to emphasise the existence and the potential of their IC. This study's results agree with the argument in the literature that the firms are more communicative when they are driven by the equity-offerings motive (Lang and Lundholm 2000; Singh and Zahn 2008). It appears that market forces provide incentives for voluntary disclosure of IC in that IC information may reduce the information asymmetry and, consequently, reduces the cost of capital. That is, capital-raiser firms provide a significantly greater variety and a higher amount of IC in their annual reports prior to equity-offerings activity. More importantly, the information was portrayed intensely in quantitative disclosures and was emphasised through its positioning throughout the annual report and the difference was significantly stronger compared to firms without the capital-raising event.

Future studies could be conducted from users' and managers' perspectives. Future research could examine voluntary disclosure made by firms to explore its impact on users such as financial analysts. Also, it appears that voluntary disclosure presents opportunities for managers to engage in impression management. Therefore, future research could utilise impression management strategies to investigate the disclosure of IC.

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