MANAGEMENT & ACCOUNTING REVIEW

Volume 16 No. 2
December 2017

CONTENTS

A Comparative Analysis of Intellectual Capital Disclosure Practices between Malaysia and Indonesia

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ABSTRACT

This study examined the extent of intellectual capital (IC) disclosure practices between Malaysian and Indonesian agricultural companies. This study relied on content analysis on the annual reports of public listed agricultural companies in Malaysia and Indonesia. The results show that the extent of IC disclosure practices of the companies between the two countries are similar. However, the Malaysian companies disclose more information on human capital and are more quantitative in nature whilst the Indonesian companies disclose more information on relational capital and more qualitative. The results also show a significant positive relationship between the extent of IC capital disclosure and companies' performance. The findings in this study contribute further understanding on the extent of IC capital disclosure in the agriculture industry. This study extends the understanding of the role of IC and its interaction in generating competitive edge from the perspective of a developing nation such as Malaysia and Indonesia.

Keywords: *Intellectual capital, human capital, disclosure practices, relational capital, performance, agricultural, listed companies, developing nation, Malaysia, Indonesia*

ARTICLE INFO

Article History:
Received: 27 June 2017
Accepted: 15 October 2017
Available online: 31 December 2017

INTRODUCTION

Globalization has led to the emergence of knowledge-based economy that has become one of the critical resources for an organisation. As a result of the competitive knowledge-intensive and rapidly changing business environment, more companies are creating value-based knowledge which subsequently led to the investment of soft factors such as human resources, research and development, organisational development and relationships. The value derived from information sources is known as intellectual capital (IC) (Guthrie, Ricceri & Dumay, 2012; Melloni, 2015). Knowing that IC is an essential resource for organisational success in a knowledge-based economy, managing IC as well as measuring and reporting IC-related information has gained importance in recent years. Researchers have argued that non-disclosure of IC creates information asymmetry (Holland, 2009) and leaving average investors to be at risk of insider trading (Vergauwen & Alem, 2005; Cuozzo, Dumay, Palmaccio & Lombardi, 2017). To overcome such risks, managers disclose detailed IC information in their annual report to improve transparency between the management and the stakeholders. Creating transparency helps management to allocate their resources effectively and facilitate decision making for their companies (Marr & Moustaghfir, 2003; Melloni, 2015).

A review of the accounting literature shows a growing trend in researching the field of IC in accounting (such as Abeysekera, 2007; Cordazzo & Vergauwen, 2012; Huang, Luther, Tayles & Haniffa, 2013; Melloni, 2015; Cuozzo et al., 2017). These studies have moved from the normative commentary-type papers to empirically based research. However, most of these studies were conducted in developed countries and focused mainly on the comparison on the extent of IC disclosure between industries in one single country. Comparative studies on reporting practices of one industry such as agriculture and between developing countries such as Malaysia and Indonesia is sparse. This study focuses on one single industry namely, the agricultural industry between two developing countries namely, Malaysia and Indonesia. The findings in this study would provide further understanding on the IC disclosure practices and the link between the extent of IC disclosure and company performance. The remainder of this paper is structured as follows. The next section, Section 2 provides the literature review. Section 3 provides the research framework and hypotheses

development of this study. This is followed by Section 4 that outlines the research design. The results of the data analyses and discussions are shown in Section 5. The last section concludes the study.

LITERATURE REVIEW

Intellectual Capital

Intellectual capital (IC) refers to invisible assets that are important resources for organisational long-term success such as information-based assets include technology, consumer trust, corporate culture, brand image and management skills (Itami & Roehl, 1987; Cuozzo et al., 2017). IC consists of three main components namely, human capital (HC), structural capital (SC) and relational capital (RC) (Li, Pike & Haniffa, 2008; Haji & Ghazali, 2012; Bini, Dainelli & Guinta, 2016). HC is defined as the value of employees within a company and the rewards that attached to its operation (Vergauwen & Alem, 2005). It also includes knowledge, competence and experience that the employees bring along with them if they leave the company (Canibano, Garcia-Ayuso & Sanchez. 2002). SC is defined as the knowledge that stays within the company at the end of the working day or knowledge embedded in the organisational structure (Canibano et al. 2002). It consists of routines organisational procedures, systems, cultures and databases used by the employees (Pablos, 2004). RC on the other hand, captures all resources associated with the company's external relations such as customers, suppliers or partners in research and development (Canibano et al. 2002). It comprises the knowledge of market channels, customer and supplier relationships, and governmental or industry networks. Part of HC and SC is involved with the company's relationship with stakeholders (investors, creditors, customers, suppliers) including their perceptions of the company (Canibano et al. 2002).

Most studies predominantly examined IC disclosure within annual reports of public listed companies. Striukova, Unerman & Guthrie (2008) in their study on IC used data collection in the form of a wider range of reports ranging from analysts' report, social and environment report (SER) and company's website. Their results indicate that managers tend to use several types of corporate reports to communicate voluntary information to their

stakeholders. This is because the annual report itself cannot be expected to be a representative of the nature and extent of IC disclosure for the company. On the other hand, Bukh, Nielsen, Gormsen & Mouritsen, (2005) also used a different instrument in collecting data in their study on IC disclosure. The authors chose to analyse data in Intial Public Offerings (IPOs). Bukh et al. (2005) found that companies tend to disclose IC information in IPOs. Such trend has increased substantively in the last decade due to the realisation that disclosure of such information in IPOs is vital in market evaluation of a company's value.

In sum, these studies are country-specific with most studies conducted in developed countries and are cross-sectional in nature. Such findings reveal the lack of cross-national and single-industry focused studies. This study aims to fill this gap.

Intellectual Capital Disclosure and Companies' Performance

Most studies in the IC literature have examined the effect of IC efficiency on a company's performance leaving examining the link between company's performance and IC disclosure largely unexplored (Kamath, 2008; Mehralian, Rajabzadeh, Sadeh & Rasekh, 2012). These studies often used value added intellectual coefficient (VAIC^{TM}) as performance measurement. Company's performance proxies were often represented by return on assets, return on equity, earnings per share, asset turnover and market capitalisation. In sum, studies using VAIC provide mixed results across industries, countries and years.

Studies that have examined the link between IC disclosure and companies' performance have limited their setting to one country (Abdolmohammadi, 2005; Ousama, Fatima & Hafiz-Majdi 2011; Boujelbene & Affes, 2013; Aledwan, 2014; Chicchi & Dumay, 2015). A comparative analysis study examining the extent of IC disclosure on company's performance over in a specific industry over two countries is under-researched. For example: Abdolmohammadi (2005) examined the effect on IC disclosure on market values companies in the USA, while Ousama et al. (2011) and Taliyang, Jaffar, Mustafar and Mansor (2014) examined the effects on IC disclosure on market value of Malaysian companies. Other studies have examined the impact of IC disclosure on

cost of equity capital such as Singh and Van der Zahn (2007) in Singapore and, Boujelbene and Affes (2013) in France.

Bukh et al. (2005) suggested that the traditional financial reporting model is inadequate to communicate with the important resources of today's business. Since current financial reporting models fail to incorporate investments in intangibles (IC), it has increased the information asymmetry between companies and their stakeholders (Barth, Kasznik & McNichols 2001; Rylander, Jacobsen & Roos,, 2000). Consequently, this has caused concern within the capital market on the ability and relevance of the accounting numbers reported in the financial reports for making economic decisions (Barth et al., 2001). For example: Singh and Van der Zahn (2007) found that under-pricing and the amount of IC disclosure is positively associated. However, the results cannot be generalised to the link between IC information and cost of capital as the study only focused under-pricing in IPOs rather than the cost of equity capital directly. In relation to the link between IC disclosure and profitability, studies have also provided mixed findings. Aledwan (2014) examined such a link and found no association between RC categories to the profitability of the companies. Using 13 Jordanian commercial banks for the period (2007-2012) as the sample in his study, he found a significant effect on the profitability of the bank as measured by earnings per share (EPS) and market value. However, his study highlighted a different result at the individual level of IC disclosure. His results show HC and SC to be statistically significant, but RC showed no such effect on the extent of IC disclosure on EPS and market value. Such mixed findings motivate this study to investigate this issue further. In addition, studies that examine the link between IC disclosure on market capitalisation are limited.

RESEARCH FRAMEWORK AND HYPOTHESES DEVELOPMENT

Research Framework

Figure 1 depicts the research framework of this study. This study argues that the extent of IC disclosure will positively contribute to high company performance. The independent variable of the framework is the

extent of IC disclosure. The dependent variable is company' performance as measured by market capitalisation. Country on the other hand, is the control variable of the framework.

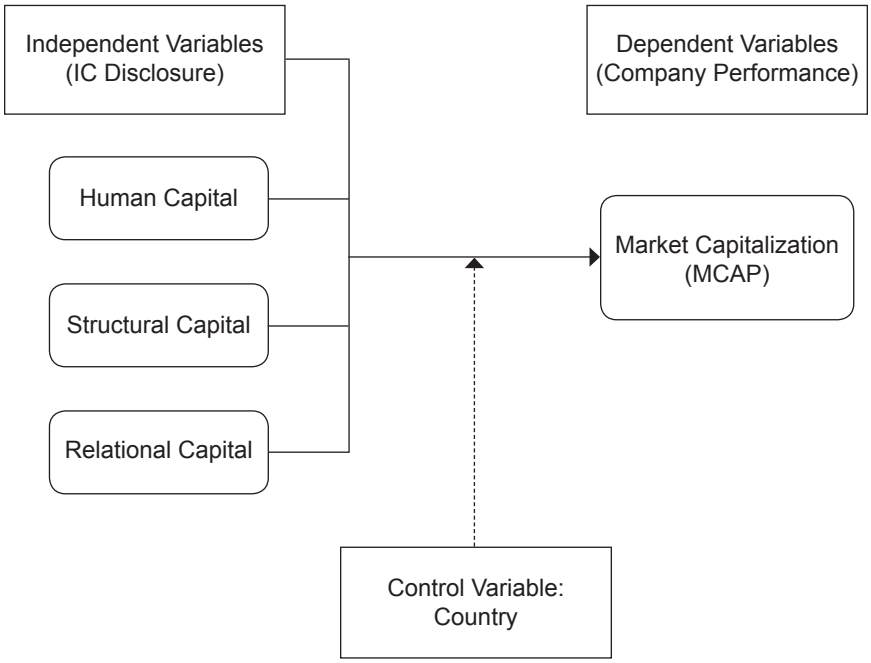

Figure 1: Conceptual Framework

Hypotheses Development

The disclosure patterns or practices may be different between companies across countries as affected by the legal system of a country (Hope, 2003). Hope reported that the legal system is the most important explanatory variable to explain the nature and extent of IC disclosure. He also reported that a common law country seems to disclose more information as compared to the code law countries. Therefore, companies in Malaysia as a common law country are expected to disclose more IC information compared to companies in Indonesia. Ownership structure could also influence the information disclosed in annual reports (Li et al., 2008). It is reported that, ownership concentration is high in Indonesian listed companies in contrast to the Malaysian environment (Driffield, Mahambar

& Pal, 2007).From this point of view, this study suggests that country level features do affect the extent of IC disclosure in annual reports. Hence, the first hypothesis is constructed as follows:

H1: There are significant differences in the extent of disclosure among the three categories of IC (HC, SC and RC) between Malaysian and Indonesian agriculturalcompanies

Previous studies have examined the link between disclosure in general (i.e. voluntary, mandatory and both) and MCAP (Lang & Lundholm, 1996). These studies found that when the extent of disclosure increases, misevaluation of a company's share price will decrease hence increasing its MCAP. However, about IC disclosure, there are limited studies which have examined the relationship between IC information disclosure by companies and their MCAP. The findings of these studies also indicate that there is a significant positive relationship between IC disclosure and MCAP. Thus, these findings are consistent with findings on the voluntary disclosure studies which found the extent of voluntary disclosure in the annual reports and MCAP to be positively associated (Ousama et al., 2011; Taliyang et al., 2014). This study expects the extent of IC information disclosed or reported in the corporate annual report will have a positive influence on MCAP. Therefore, the following hypothesis is formulated:

H2: There are significant positive relationships between the extent of ICD and companies' MCAP

Recent studies have also analysed the link of each IC category to company performance. These studies provide mixed results. Ousama et al. (2012) confirmed a negative association between each category of IC disclosure and company's cost of equity capital, whilst Boujelbene and Affes (2013) found a negative significant association between IC disclosure with its two categories: HC and SC with cost of equity capital. This study also extends the analysis to examine the effect of each IC category to companies' performance (proxy of MCAP). Aledwan (2014) found that at an overall level, the extent of IC disclosure has a positive significant relationship with MCAP. However, at the category level, the results indicate no significant relationship between RC and MCAP. Examining this issue will helps interested parties to understand the key categories of IC that may be causal to influence the MCAP. Thus, the following hypotheses are formulated:

H3a: There is a significant positive relationship between HC and companies' MCAP

H3b: There is a significant positive relationship between SC and companies' MCAP

Hc: There is a significant positive relationship between RC and companies' MCAP

RESEARCH DESIGN

Sample Selection

This study chose the agricultural industry in Malaysia and Indonesia as the setting. The total sample chosen is 53 companies comprising of 39 Malaysian agricultural companies and 14 Indonesian agricultural companies. In deciding the sample of this study, the companies must fulfil the following criteria:

1. The companies must be listed on Bursa Malaysia under the plantation sector for Malaysian companies and listed in the Indonesia Stock Exchange under the agricultural sector for Indonesian companies by the end 2012. This study chose the annual reports until 2012 only because starting from 2012 onwards the Indonesian companies have adopted the fair value model for their agriculture following their convergence with the International Financial Reporting Standards. Malaysia on the other hand, still adopted the cost model. The different accounting practices in both countries would result in different accounting outcomes that makes an 'apple to apple' comparison impossible.

2. The annual reports of the financial year 2012 in English must be available in the Bursa Malaysia and Indonesia Stock Exchange website

The listed companies on the stock exchange were selected as the sample as they are more likely to disclose IC information (Ferreira & Moreira, 2012). The sample covers all listed companies under the plantation/ agriculture sector and are listed on the main or second board.

Data Collection Method

This study used content analysis on the annual reports of the two companies. The content analysis method iwasconducted in two phases. The first phase was reading the annual report of each company. The second phase involved coding the information, both qualitative and quantitative in the coding sheet according to the designated framework of IC indicators (Guthrie Petty & Ricceri, 2006). This methodology permits the presentation of published information in a structured, objective and reliable manner (Guthrie et al., 2012). Three principles must be adhered namely, stability, reproducibility, and accuracy. To demonstrate reliability and validity of data collection, this study reliedon two independent coders when conducting the content analysis (Foong, Loo & Balaraman.,2009).

IC Disclosure Checklist

The categories or indicators of IC classification used in the content analysis must be coherently and operationally defined in order to avoid inconsistency which could potentially distort the results (Beattie & Thomson, 2007). After an extensive review on IC disclosure studies in the literature, the framework used in this study is based on three categories of IC namely, HC, SC and RC. For the purpose of analysis, a comprehensive IC framework developed by Li et al. (2008) was adopted.

Scoring IC Disclosure

Past studies have examined the extent of IC disclosure practices using a dichotomous basis (0,1) (see Abdolmohammadi, 2005; Li et al., 2008; Ousama et al., 2012; Sumon, Loo & Balaraman., 2014). The dichotomous approach concerns on the absence or presence of attributes in the disclosure checklist and is more objective as scaling errors can be avoided. A '0' was given if an item in the checklist does not appear in the annual report and value of '1' was given if an item was disclosed. However, this approach is frequently criticised as not being able to capture the quality of disclosures (Haji & Ghazali, 2012).

To overcome such criticism, this study used a three-point scale (0-2) (Bozzolan, O'Regan & Ricceri., 2006; Wijana, Sutrisno & Wirakusuma., 2013) and sentences were selected as recording units as it is deemed far

more reliable than any unit of analysis as individual words lack meaning without the sentence (Wijana et al., 2013). The sentences were scored in the following manner: '0' if the information did not appear in annual reports; a value of '1' was given for providing information in qualitative form, and the highest score of 2 was denoted if items were disclosed in quantitative terms. If an attribute appeared more than once throughout the annual report, it was only being recorded once.

Variables

To examine the potential relationship between the extent of IC disclosure and company performance, the dependent variable and its measurement were identified. The proxy of company performance is market capitalization (MCAP). The dependent variable was selected based on some empirical evidences gathered from past studies (Clarke, Seng & Whiting, 2011; Mehralian et al., 2012). For the purpose of this study, the dependent variable, MACP is defined the number of shares outstanding multiplied by share price.

Independent Variables

To measure the independent variables (extents of IC disclosure), content analysis was employed on the 53 selected agriculture companies of Malaysia and Indonesia. The IC framework checklist by Li et al. (2008) consistingof 61-IC attributes (HC *n=22, SC n=18, RC n=21,) was adopted and was scored using a three-point scale (0-2). The amount of disclosure at category level was calculated by adding the scores of each IC attributes within the category. This indicates that the maximum points for all three categories that a company can score is 122 (i.e. HC=44, SC=18, RC=42 or each attributes (x) 2 points). An overall disclosure index (ICD) was then determined by total of actual score awarded divided by the maximum potential score applicable to that company. This index has also been used successfully in previous studies* (Bukh et al., 2005; Li et al., 2008).

$$\text{ICD} = \frac{\sum_{i=1}^{m} d_i}{m}$$

Where,

d_i = expresses attributes is with a value of 2 if disclosed in quantitative terms, 1 if qualitative form, and 0 if the attribute was not disclosed

m = *maximum possible score a company could achieve, that is 122 (61 items multiplied by two [quantitative disclosure]).*

Control Variables

To isolate the effects of other factors with predictable influences on company performance, the study included country as the control variable. The control variable for this comparative study is country code (CC), whereby Malaysia was coded as '1' and Indonesia was coded as '2'.

Regression Models

To examine the relationship on the extent of IC disclosure on company performance, a regression model was developed to test the direct relationship between independent and dependent variables. The regression line provides an estimation of the linear relationship between a dependent variable and one or more independent variables. The regression was adopted from (Ousama et al., 2011) with some modifications. The multiple regression equation for this study was constructed as follows:

Model 1: $MCAP = \beta_0 + \beta_1 ICD + \beta_2 CC + \varepsilon_j$

Model 2: $MCAP = \beta_0 + \beta_1 HCD + \beta_2 SCD + \beta_3 RCD + \beta_4 CC + \varepsilon_j$

Where,

MCAP = Market capitalization;
ICD = Overall IC disclosure;
CC = Country Code;
β_0 = intercept;
β_1 = parameters to be estimated, *i = 1, . . . ,4;*
ε_j = *error term.*

RESULTS

Extent of IC Disclosure

Table 1 displays the descriptive statistics for IC disclosure and each category of IC disclosure for Malaysian and Indonesian agricultural companies for the year 2012. Looking at ICD results by country, the mean of IC attributes disclosed in annual reports is 62.13 for Malaysia and Indonesia scored a slightly higher result, at 63.38. The descriptive results indicate that the extent of ICD practices is broadly similar in the two countries. Both countries reported IC information in the annual report at the same level (>60%). The average of the extent of ICD was found to be higher compared to prior studies such as Li et al. (2008) and Foong et al. (2009) at 51.00, 30.00 and 47.00, respectively.

Table 1: Descriptive Statistical Results of the Extent of ICD

Country	ICD			HCD			SCD			RCD		
	n	Mean	SD	Mean	SD	%	Mean	SD	%	Mean	SD	%
Malaysia	39	62.1316	6.8504	22.7368	3.9366	37	18.3947	3.12392	30	21.0000	2.7996	33
Indonesia	14	63.3846	9.5179	21.7692	6.1665	34	18.1538	3.73823	29	23.4615	2.8171	37
Total	53	62.4510	7.5348	22.4902	4.5580	36	18.3333	3.2537	30	21.6275	2.9797	34

Notes:n=total sample, ICD=Overall IC disclosure, HCD=human capital disclosure, SCD=structural capital disclosure, RCD= relational capital disclosure, SD=standard deviation

It has been argued that the country specific features such as legal system practices by the country may affect the extent of the disclosure practices. As reported by Hope (2003), legal system is the most important explanatory variable to explain the nature and extent of disclosure. He also argued that companies in the common law country seem to disclose more information compared to companies situated in code law countries. The results in this study contradict with Hope's argument. However, the results in this study support Bozzolan et al. (2006) that the country level features such as type of legal system practiced is not necessarily related in explaining the extent of information disclosed in annual reports.

About the total of disclosure for the overall sample, the mean score of 62.45 (>60%) suggests that companies in both countries, on average, are aware of the importance of IC disclosure. The results support the stakeholder theory and legitimacy theory, whereby companies in both countries realised

that the annual report is an efficient means to communicate with their stakeholders and hence, motivate them to increase voluntary disclosure of information in annual reports in order to legitimize their status.

Extent of IC Disclosure by IC Categories

The analysis of IC disclosure by categories highlighted that the companies disclosed more on HC, compared to the other IC categories. The mean score for the total sample indicates that about 36% of the disclosures relate to HC, about 34% relate to RC and remaining 30% relates to SC. This result represents the extent of IC disclosure of the agriculturalindustry. The large percentage represented by HC might be explained by the nature of the industry itself, whereby the agricultural industry ishighly labour intensive and requireshighly skilled workers in their daily operations (Fadzilah & Lim, 2011). Hence, reporting on such items could benefit the companies in gaining competitive advantage. The result is consistent with the findings of Fadzilah and Lim (2011) who revealed that plantation companies disclosed more information on HC categories in their annual report and claimed that the amount of disclosure differs across companies and industries.

At the country level, out of the three individual categories, the most reported categories of Malaysian companies are HCD (37%), followed by RCD at 33% and SCD at 30%. The result is consistent with the findings of study in the same country and industry focussed study by Fadzilah and Lim (2011). Besides the criteria of agriculture industry that requires the company to possess high labour intensity and skilful workers in their daily operations, the other possible reasons that could explain why Malaysian companies are more proactive in providing information in relation to HC is associated with the existence of the two economic plans, which are the Master Plan and the New Economic Model (NEM). The four critical elements identified by the government to transform Malaysia into a developed nation are: to have knowledge and skilled human capital, to have adequate support for education and training infrastructure, to develop RandD capability, and to develop a SandT base. It is also apparent that the government is expecting the private sector, particularly to public listed companies to play an active role by investing in these four elements. Therefore, investing in these elements is not only because of government pressure, but also because it can strengthen the internal capabilities that eventually contribute to companies'

productivity and value. Furthermore, the fact that the government has put so much emphasis on the development of a K-based nation could possibly lead to companies' awareness on the importance of showing the users of annual reports the importance of their HC.

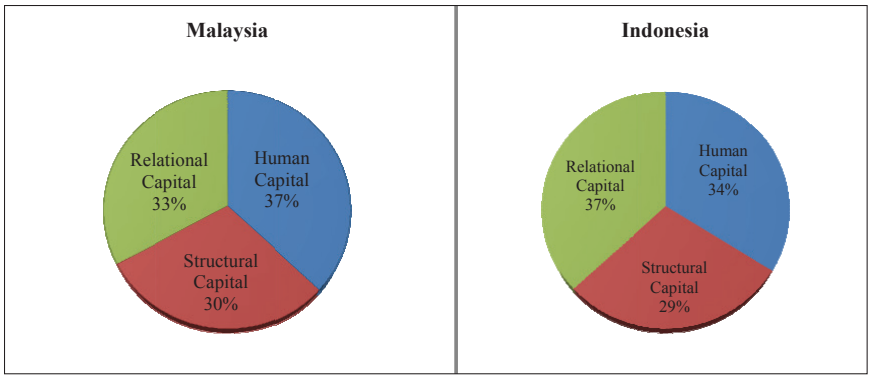

Figure 2: Extent of ICD for Malaysian and Indonesian Agriculture Companies

In contrast, Indonesian companies reported highly in RCD categories which scored 37%, HCD at 34% and also least reported on SCD categories at 29%. The result is in line with other studies conducted in the same country, but using a sample of the mixed industries (Sihotang & Winata, 2008). Thus, suggest reasons for differences at the organisational level. Abeysekera (2007) indicated that one possible explanation on why companies are more proactive in disclosing information in relation to their external capital or RC is due to increase in global competition for capital where companies need to uphold their investors' confidence. In the case of Indonesia, one of the possible explanations for the relative importance of RC relates to the Indonesia Strategic Framework for Development 2012-2016 between the Governments of Indonesia and New Zealand. Through this program, the New Zealand will invest in five focus areas reflecting Indonesia's priorities as well as New Zealand areas of comparative advantage which includes development in the agricultural industry. Such business collaboration improves effectiveness and efficiency of business operations by combining each other's core competencies. Disclosing on such information could provide competitive advantage to the companies and demands the company to disclose more information on RC. The comparison results of ICD for each country and category is depicted in Figure 2.

Extent of ICD by Attributes

Further analyses on the extent of ICD based on the ranking according to their frequency of disclosure are provided in Table 2, 3 and 4. There are 22 attributes for HCD, 18 attributes for SCD and 21 attributes for RCD. Upon analysis, this study shows that most of the mean scores for the two countries is below 1.00. Therefore, IC information disclosed by both countries was more qualitative (discursive) in nature which is consistent with prior studies (Guthrie et al., 2006; Haji & Ghazali, 2012).

Table 2 provides the comparison of top three attributes disclosed for each category according to country. The table shows that, for HCD attributes, Malaysia companies provide information on vocational qualifications, employee productivity and employee education with a mean score of 1.42, 1.39 and 1.32, respectively. As Malaysia scores the top mean for vocational qualification, this attribute ranked in Indonesia at number 20, which is at the bottom three of the HCD total attributes. Another attribute that does not show a major difference between both countries is employee education, even though Indonesia ranked this item at number 4, the mean score is higher than the Malaysian companies ranking at number 3. The Malaysian companies actively disclosing vocational qualifications might be influenced by the governments' action to promote multi skills and highly skilled workforce to increase productivity and the 10th Malaysia Plan (2011-2015) specifically addresses the HC deficiency and the need to train qualified students and develop a skilled workforce. In addition, the Higher Education Strategic Plan under the Ministry of Higher Education was put in place to revamp education to meet labour market needs. Therefore, disclosure on employee education would be a competitive advantage to the company.

Table 2: Comparison of Top Three HCD Attributes Disclosed by Both Countries

IC categories	*Malaysia*			*Indonesia*		
	Rank	**IC attributes**	**Mean**	**Rank**	**IC attributes**	**Mean**
	1	Vocational qualifications	1.42	20	Vocational qualifications	0.38
	2	Employee productivity	1.39	6	Employee productivity	1.38
	3	Employee education	1.32	4	Employee education	1.54
HCD	***Malaysia***			***Indonesia***		
	Rank	**IC attributes**	**Mean**	**Rank**	**IC attributes**	**Mean**
	13	Number of employees	0.97	1	Number of employees	2.00
	21	Employee age	0.76	2	Employee age	1.69
	11	Employee commitments	1.00	3	Employee commitments	1.62

For Indonesia, Table 2 shows that the top three most popular attributes disclosed for HCD are the number of employee, employee age and employee commitments with mean scores of 2.00, 1.69 and 1.62, respectively. The number of employees, which has a mean score of 2.00 (maximum point) indicates that all Indonesian companies in the sample disclosed that information and that information is disclosed in a quantitative manner. Among that three attributes, employee age shows a significant difference whereby Malaysia reported at the bottom two of the total attributes. For HCD, it can be concluded that, the Indonesian companies disclosed more on the quantitative nature since this item has a higher mean score compared to the Malaysian companies. The results indicate that loyalty is important for the companies as it emphasizes and discloses employee commitments and the number of employees in their annual report.

Table 3 presents the comparison of top three SCD attributes disclosed by Malaysian and Indonesian companies. Financial dealings are considered the most popular attribute reported by both countries, where the mean score for Malaysia is 1.68 and for Indonesia 1.69. There is not much major differences in the mean score for technology and distribution network, but slightly high for RandD where Malaysia ranked this item at number 2 and Indonesia ranked this item at number 13. For SCD, it can be concluded that both countries disclosed broadly at a similar level. Note that RandD and technology are the two top attributes disclosed by Malaysian companies as there is a pressure from the governments to invest in these two elements.

Disclosing such information will benefit the company. On the other hand, Indonesian companies are making efforts to legitimise parts of their operations (i.e. organisation structure) that cannot be legitimised by the traditional reporting systems.

Table 3: Comparison of Top Three SCD Attributes Disclosed by Both Countries

IC categories	*Malaysia*			*Indonesia*		
	Rank	**IC attributes**	**Mean**	**Rank**	**IC attributes**	**Mean**
SCD	1	Financial dealings	1.68	1	Financial dealings	1.69
	2	Research and development	1.63	13	Research and development	0.92
	3	Technology	1.34	6	Technology	1.08
		Malaysia			***Indonesia***	
	Rank	**IC attributes**	**Mean**	**Rank**	**IC attributes**	**Mean**
	1	Financial dealings	1.68	1.68	Financial dealings	1.69
	9	Organisation structure	1.00	1.00	Organisation structure	1.38
	7	Distribution network	1.13	1.13	Distribution network	1.38

The comparison of top three RCD attributes is presented in Table 4. There are major differences in the extent of disclosure, especially for customers attribute. The mean score for Indonesia is 1.92 but Malaysia's mean score is 0.76 and ranked at number 19. Interestingly, even though business collaboration between the two countries ranked at number 2, the mean score for Indonesia is higher than the mean score of Malaysia by 0.35. Likewise, for customer relationship, even though Indonesia ranked at 8 and Malaysia ranked this item at number 3, the mean score for Indonesia is higher by 0.15. This indicates that the Indonesian companies disclosed more quantitative information about RCD categories. Business collaboration tends to be an important attribute in both countries showing that the company is continually looking for new ways to be more efficient, deliver new products and services to the market faster and be more competitive. As companies seek new ways to collaborate and share information with business peers, they also see ways that the same technology can be leveraged to their advantage in the same workplace. Hence, the companies put greater emphasis in disclosing this matter in their annual reports.

Table 4: Comparison of Top Three RCD Attributes Disclosed by Both Countries

IC categories	*Malaysia*			*Indonesia*		
	Rank	**IC attributes**	**Mean**	**Rank**	**IC attributes**	**Mean**
RCD	1	Relationship with suppliers	1.79	7	Relationship with suppliers	1.38
	2	Business collaboration	1.34	2	Business collaboration	1.69
	3	Customer relationships	1.16	8	Customer relationships	1.31
	Malaysia			***Indonesia***		
	Rank	**IC attributes**	**Mean**	**Rank**	**IC attributes**	**Mean**
	19	Customers	0.76	1	Customers	1.92
	2	Business collaboration	1.34	2	Business collaboration	1.69
	6	Market presence	1.13	3	Market presence	1.62

IC Disclosure and Company Performance

Table 5 provides the descriptive analysis of the dependent, independent and control variables based on the data collected for the year 2012 of the agricultural companies in Malaysia and Indonesia. As shown in the Table 5, CC is the control variable, coded by 1= Malaysia and 2= Indonesia. MCAP is the dependent variable with mean scores of 8.9139. For the independent variables, the mean score for each IC category are provided as HCD=22.4902, SCD=18.3333 and RCD=21.6275. Therefore, the results show that the HCD with a disclosure range from 11.00 to 32.00 is the most reported item, followed by RCD with a disclosure range from 15.00 to 29.00 and SCD is the least reported on a disclosure range from 7.00 to 15.00.

Table 5: Descriptive Statistics of Control, Dependent and Independent Variables

Variables	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic
CC	1	2	1.25	0.440
MCAP_LG	6.56	10.52	8.9139	0.72500
HCD	11.00	32.00	22.4902	4.55795
SCD	7.00	25.00	18.3333	3.25372
RCD	15.00	29.00	21.6275	2.97967
ICD	44.00	80.00	62.4510	7.53476

Notes: CC= country code, MCAP_LG=log of market capitalization, HCD=human capital disclosure, SCD=structural capital disclosure, RCD=relational capital disclosure, ICD=Sum of HCD+SCD+RCD

Table 6 summarises the results for the relationship between IC disclosure (HCD, SCD, RCD and ICD) and companies' MCAP. As shown in the Table 6, the results indicate that there is a significant positive correlation between MCAP with HCD, SCD and ICD but not significant to RCD. The correlation coefficients are 0.293, 0.422 and 0.458 respectively. SCD and ICD are significant at the level $p<0.01$, while HCD significant at $p<0.05$. The control variable, CC shows a significant positive correlation at the level $p<0.05$ with RCD. The correlation coefficient is 0.364. Moreover, correlation coefficient values confirmed that there is no multicollinearity between the independent variables as the highest correlation can be observed between HCD and SCD at 0.385. These findings suggest that there is a positive significant correlation between the extent of overall IC disclosure with company' performance. That is company performance increases as the extent of the disclosure increases.

Table 6: Correlations of IC Disclosure and Companies Performance

	CC	MCAP_LG	HCD	SCD	RCD	ICD
CC	1					
MCAP_LG	0.146	1				
HCD	-0.093	0.293*	1			
SCD	-0.033	0.422**	0.385**	1		
RCD	0.364**	0.250	0.055	0.186	1	
ICD	0.073	0.458**	0.793**	0.739**	0.509**	1

To provide empirical evidence for H^2, regression analysis was used. The results are shown in Table 7. From Table 7, the ICD explains 19% of the variance, where (adjusted R2= 0.190, F= 6.864, Sig.F=0.002).The value of R2 indicates that 19% of the variance in MCAP can be explained by ICD. The results show that ICD is positively significant at the .001 level (*p<0.05) and can be considered as a predictor of MCAP.*

Table 7: Model 1- Regression Results of ICD (overall) Against MCAP

Variables	R	R^2	Adjusted R^2	F-Value	Sig.F
ICD	.472	.222	.190	6.864	0.002**

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	5.978	0.798		7.494	0.000
CC	0.187	0.210	0.113	0.887	0.379
ICD	0.043	0.012	0.450	3.523	0.001***

***.significant at the 0.001 level
**.significant at the 0.01 level
Notes:CC=country code, ICD=Sum of HCD+SCD+RCD

The findings are consistent with previous studies (Abdolmohammadi, 2005; Taliyang et al., 2014) that found ICD to be statistically significant with MCAP. The significant positive coefficient of ICD indicates that the more a company disclosed information on IC in its annual report, the higher the MCAP would be. Therefore, based on the results, it can be concluded that the ICD in the annual reports of Malaysian and Indonesian agriculture companies has an effect on MCAP, thus hypothesis H^2, that IC disclosure would have a positive impact on MCAP, is supported. In addition, country code (*p>0.05) is not a significant predictor in explaining the relationship of overall IC disclosure and MCAP. Such a result provides further support to the finding of H*1, whereby there are no significant differences in the extent of IC disclosure practices between Malaysia and Indonesia at the overall level of disclosure.

A regression model was also employed to examine the effect of IC disclosure at the category level with MCAP in order to identify which categories of IC have a significant effect on company performance. As shown in Table 8, it is concluded that there is no significant effect of the

HCD on the companies' MCAP, where (β=0.027, sig.=0.237). Since (t=1. 197, *p>0.05), therefore hypothesis H*3a is rejected. This indicates that HCD does not have a significant effect on companies' MCAP. The findings provide inconsistent results with Aledwan (2014) that found that HCD has a significant effect on the bank's market value. As for the SCD, it is concluded that there is a significant effect of SCD on the companies' MCAP, where (β=0.075, sig.=0.022). Since (t=2.377, *p<0.05), therefore hypothesis H*3b is accepted, indicating that the extent of disclosure of SCD attributes does have a positive significant relationship with MCAP. Meanwhile, the results show no significant effect of the RCD on the companies' MCAP, where (β=0.032, sig.=0.353). Since (t=0.938, *p>0.05), indicating that the hypothesis H*3c could not been supported. This indicates that RCD does not have a significant effect on companies' MCAP and supports Aledwan's (2014) findings.

Table 8: Model 3- Regression Results of IC Categories Against MCAP

Variables	R	R^2	Adjusted R^2	F-Value	Sig.F
HCD, SCD, RCD, CC	0.492	0.242	0.176	3.677	0.011*

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	5.986	0.849		7.048	0.000
CC	0.205	0.229	0.125	0.896	0.375
HCD	0.027	0.022	0.167	1.197	0.237
SCD	0.075	0.032	0.337	2.377	0.022*
RCD	0.032	0.034	0.132	0.938	0.353

*.significant at the 0.05 level

Notes:CC=country code, HCD=human capital disclosure, SCD=structural capital disclosure, RCD=relational capital disclosure

CONCLUSION

The objectives of this study were to examine the extent of IC disclosure practices of Malaysian and Indonesian listed companies in the agricultural industry. Using content analysis techniques, this study examined the annual reports of 39 Malaysian agricultural companies and 14 Indonesian agricultural companies listed on the stock exchange in the year 2012. The results indicate that there are no significant differences in the extent of IC

disclosure of Malaysian and Indonesian agriculture companies. In addition, Malaysian companies disclosed more on HC categories, whilst Indonesia disclosed more on RC. SC shows a less popular reported category for both countries. In terms of performance, the results show a significant positive relationship between overall IC disclosure and companies' MCAP. Such results indicate that when a company disclosed more IC information in its annual report, the company's performance, in particular MCAP will increase and thus, supported H^2. However, at the category level, the results show that only SCD has positive significant effect to the MCAP. Overall, the results convey that the integrated information about IC (human, structural and relational) influences the companies' performance but not at category level.

This study has few limitations. The most important is that its sample size is limited to 53 agricultural companies in both countries with one year of data only. The small sample and one-off basis-based study will not comprehensively or accurately illustrate the real situation of IC disclosure in the agricultural industry. The data collected also was limited to the information that has been disclosed in the corporate annual report. Additionally, the study focussed only on one measurement of companies' performance which is MCAP.

This study extends the understanding of the role of IC and its interaction in generating competitive edge from the perspective of a developing nation such as Malaysia and Indonesia. The findings in this study contribute to the IC literature particularly, on IC disclosure in the agricultural industry. This study alleviates the gap in the IC literature related to comparative of cross-national study. Finally, this study provides an understanding of the current reporting practices of IC and the link between the extent of IC disclosure with company performance.

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