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THE INFLUENCE OF CORPORATE GOVERNANCE ON RELATIONAL CAPITAL DISCLOSURE AMONG HIGH GROWTH TECHNOLOGY COMPANIES

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ABSTRACT

This study examines the relationship between corporate governance elements and relational capital disclosure. This study analyses 229 annual reports of companies in the technology industry that are listed on the Main and ACE Market of Bursa Malaysia. The results indicate that multiple directorships, institutional and government ownerships positively affect relational capital disclosure. Managerial ownership, on the other hand, reduces the incentives of the management to signal such information. In addition, we also find younger companies to have more incentives to disclose relational capital information compared to more established companies. Contrary from past research, this study used a conceptual model developed based on network theory that suggests companies have an incentive to increase their competitive advantage by increasing network between organizations. This study is the first of its kind that specifically investigates the association between relational capital disclosures with the corporate governance practices. The results highlight that important corporate governance determinants of relational capital disclosure can be predicted when signaling intention of the board and network arguments are considered. The findings are useful for regulators in emerging countries characterized by highly networked economy, whereby, business and personal networks are important for company sustainability.

Keywords: *Corporate governance, capital growth, high growth companies*

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INTRODUCTION

Intellectual capital[1] is regarded as the most important resource for companies to have competitive advantage. It affects the internal level of innovation and creativity as well as improves the company performance (Nik Muhammad, Md Isa & Nik Ismail, 2006). The intellectual capital disclosure in the company includes disclosure with regards to its components, namely human, structure and relationship capitals.[2] This information is beneficial for investors to reduce uncertainties about the company future prospects, risks and facilitate company valuation (Bukh, 2003). The company inability to present value creation activity in financial report (Lev & Zarowin, 1999) via intellectual capital information increases information asymmetry between financial firms and users (Healy & Palepu, 2001). Information asymmetry results in inefficient resource allocation in capital market (Li, Pike & Haniffa, 2008) and increases capital cost.

Relationship capital includes the relationship between organization and external parties such as customers, competitors, suppliers and the Government (Bontis, Chua & Richardson, 2000). Relationship capital is the key component to intellectual capital, which is often disclosed in annual report. Past research on intellectual capital in Ireland (Brennan, 2001), Italy (Bozzolan, Favotto & Ricceri, 2003), Sri Lanka (Abeysekara & Guthrie, 2005) and Malaysia (Goh & Lim, 2004) show that companies tend to reveal about relational capital as compared to other intellectual capital components. However, no studies regarding factors that contributes to relational capital disclosure. As such, previous studies that examine the factors contributing to intellectual capital disclosure have inconsistent results. The inconsistency of findings may due to different factors that determine different types of disclosure. That is, the important factors that determine relational capital disclosure may from human and structural aspects are different. For example, Boards have the inclination to disclose their friendship with CEO because it can improve the shareholders'

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1 Intellectual capital is defined as intangible assets, including technology, information, customers, reputation and corporate culture that contribute to firms' competitive advantage (Low and Kalafut, 2002)

2 Human capital is the ability or efficiency of human resources including skills, experience and background of an employee, the structural capital includes database, organization hierarchy, manual processes, strategy, work schedule as well as the mechanisms that help the work process, while the relational capital covers the whole relationship between organizations and outsiders such as customers, competitors, suppliers and the Government (Bontis, 2001)

perception regarding the decision that they make (Rose, Rose, Norman & Mazza, 2014). Therefore, incentives for disclosure are specific to the type of information disclosed. The Managers or Directors is expected to receive certain incentives in revealing other types of relational information. This expectation is made when incentives are examined in specific from specific theoretical viewpoint and the items are developed to measure relational capital. Companies are motivated to provide relational capital disclosure to reduce uncertainties among investors and minimise agency cost.

Due to this argument, this study expects that the relational capital disclosure determinants can be detected via corporate relationship model, which is jointly used with the signaling and agency theories. A corporate relationship model is adopted from Goerzen (2007). From previous studies, corporate governance[3] practice is proven to affect the company disclosure practice (for example. Mine & Hassan, 2016; Beekes, Brown & Qiyu, 2015), thus the objective of this study is to examine the relationship between corporate governance elements (such as the characteristics of Board of Directors and the company ownership structure) and relational capital disclosure.

In comparison to previous studies, this study is different in several respects. First, past research develop disclosure index based on user perception. The use of such approach is deficient due to the information deem important is not useful to drive company growth and competitive advantage. Consequently, managers may not have the intention to signal the information. Different from past research, this study used the conceptual model proposed by Goerzen (2007) to select elements and items of disclosure. A conceptual model by Goerzen (2007) is developed based on network theory, suggesting that companies have the incentive to increase their competitive advantage by improving network between organizations. This model suggests that elements such as networking size, international network experience, geographical networking diversification and repeated network are the networking elements that can enhance company performance. Therefore, when these elements are met, the company have an incentive to provide signal (in accordance with the signaling theory) to

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3 Corporate governance can be defined as the processes and structures used to manage the affairs of the company in order to enhance corporate performance and accountability with the goal of realizing the long term value for shareholders and the interests of others (Lee, 2003).

the market about which network that can lead to competitive advantage for company in the industry.

Second, this study views the relationship between corporate governance and relational capital disclosure from different point of view, which is from the angle of signaling. Consequently, this study is the first of its kind that specifically investigates the association between relational capital disclosure and corporate governance practice. The predictions are made based on signaling intention of corporate board and owners. Third, Malaysia is used as the setting because network is important for businesses in this country, which is also labelled as "relationship-based economy" (Adhikari, Derashid & Zhang, 2006). Within this context, a formal test on the effect of young, high growth technology companies (versus a more established technology companies) listed on the Malaysian ACE and Main market was conducted. It is predicted that the young, high growth technology companies have less reliance, thus they tend to disclose relational capital as compared to other established companies. The young, high growth technology companies often have insufficient internal resource and capabilities than established companies (Xiong & Bharadwaj, 2011). In addition, the young companies with limited performance record and relational capital can provide observable signal to investors (Xiong & Bharadwaj, 2011). The signal in the long run also turns into corporate reputation (Florin, Lubatkin & Schulze, 2003). Thus, such setting provides enough incentive for companies to provide relational capital disclosure.

The significance of this study is that it sheds light and provides additional explanation to relational capital disclosure practice made by companies from a different perspective i.e. signaling and agency. We believe that investigation on corporate disclosure must be made on specific issue. By doing this, specific disclosure incentive (in specific signaler - some corporate governance mechanisms) can be identified and tested. In addition, specific disclosure items are derived from a justified framework i.e. in this case network perspective. The study may prove that the use of only agency theory is unable to describe the relational capital disclosure practice. Thus, agency theory is used in conjunction with signaling theory to predict the disclosure of relational capital information that can give competitive advantage to the companies.

This paper is arranged as follows; the next section discusses the past research and formulation of hypotheses. The section is followed by research method. Section four is for analysis and discussion, followed by the fifth section, which the conclusion of the study.

PAST RESEARCH AND FORMULATION OF HYPOTHESIS

Relational capital includes the organizational development elements such as relationship between company and customers, competitors, suppliers and the government (Bontis, 2001). Prior studies show that the relationship increases company stock market performance (Kalaignanam, Shankar & Varadarajan 2007; Swaminathan & Moorman 2009) and corporate reputation (Florin, Lubatkin, & Schulze 2003). Due to its importance, relational capital disclosure is provided in the annual report as compared to other intellectual capital components such as human and structural capitals (Brennan, 2001; Bozzolan, Favotto & Ricceri, 2003; Goh & Lim, 2004; Abeysekara & Guthrie 2005). Disclosure of relational capital information, as part of voluntary disclosure, results in reduction in capital and debt cost, there is an increase of trade transaction securities. Nevertheless, there are no studies that look at factors that contribute to the relational capital disclosure. Most studies which examined the factors that contribute to intellectual capital disclosure as an aggregate measure of human, structural and relational capital found inconsistent results. The inconsistency is caused by the difference of factors that determine relational capital disclosure from human and structural capitals.

Information regarding company relationship (relational capital) is considered as private as this piece of information is not measureable or quantifiable and its disclosure in the financial statement is not made mandatory. It is worth looking at this issue from signaling and agency theories' point of view. Consistent with signaling theory, managers with superior knowledge of company information have the tendency to communicate the information through voluntary disclosure to user. The intention to provide additional disclosure voluntarily comes from the benefits that are described above. Jensen and Meckling (1976) suggest that private information signaling can reduce agency cost and hence the financing cost. In addition, reduction of information asymmetry between

the provider and users of corporate information results in improvement of company reputation, making the stocks more attractive for investment. Thus, relational capital disclosure maximizes firm value and consequently, increases aggregate effect of the contracting parties. Therefore, board of directors that represent shareholders are expected to demand such disclosure to be provided as it improves company value. Traditionally, internal corporate governance mechanism influences information disclosure, which includes board size, independence, multiple directorship and ownership structure. In addition, the internal mechanism is directly involved in, or at least has pressure on, the decision to disclose relational capital information. However, other external board mechanisms such as market for corporate control, regulations, labor and market for products may serve as additional explanatory variables that affect disclosure in general. These factors are not focused in this study because investigation of each effect requires research to be carried out in a specific context. Therefore, the effect of board size, independence, multiple directorship and ownership structure are discussed.

Board Size

According to agency theory, a well-functioned board of directors is central in good corporate governance. The board is a mechanism where the principal (mainly shareholders) can monitor the agent (management). Company performance that is run by management can be scrutinized in a board meeting. Among important characteristics of the board is the board size. There are two main effects of board size, first is the board ability in decision-making increases as the board member increases, and second, the board internal coordination lower when the number of board members is excessive. Prior research show that large size board increases decision quality (Hermalin & Weisbach, 2003; Alfraih, 2016; Omair Alotaibi & Hussainey, 2016) and lowers CEO domination (Zhou & Chen, 2004). However, recent evidence not rooted from the agency and resource based view suggests otherwise (Torchia & Calabrò, 2016). As board decides the level of disclosure, the issues arise is whether board members can influence the relational capital disclosure level, which reduces information asymmetry and agency cost.

As number of board members increases, more stakeholders are represented. Therefore, demand for information disclosure from different

types of stakeholders is viable in a large board. In addition, as the board size grows, the board members can help the company to engage in more relationship. As such, the company have to disclose the relationship to the stakeholders. Due to the benefits, the board is willing to disclose this information. Thus, the larger the board, the higher the level of relational capital disclosure and hence the lower information asymmetry between company and information users (Chen & Jaggi, 2000).

> H_1: There is a positive relationship between board size and relational capital disclosure.

Board Independence

Independent nonexecutive directors are in a better position to monitor the management (Cotter & Silvester, 2003). Consistent with agency theory, independent nonexecutive directors on the board become a control mechanism over the management to make sure the latter acts in the interest of shareholders, including the minority. Independent directors are related to effective company monitoring activities (Fama & Jensen, 1983) and company value maximisation (Bueno, Salmador & Rodríguez, 2004). As such, it is expected that the directors have the incentive to monitor company disclosure so that stakeholders receive sufficient signal about a company for them to make an informed decision. In addition, independent board members who represent stakeholders balance the majority owners or block holders who have their representative on the board. As such, the demand for information from stakeholders can be channeled through independent directors in the board meeting. Consistent with this, prior research found that companies with higher proportion of independent nonexecutive members on the board tend to disclose intellectual capital voluntarily (Eng & Mak, 2003; Haniffa & Cooke, 2005; Li, Pike & Haniffa, 2008; Patelli & Prencipe, 2007; Lim, Matolcsy & Chow, 2007; Hossain, 2008; Alfraih, 2016; Torchia & Calabrò, 2016).

In line with agency and signaling theories, an increase in the proportion of independent directors on the board, the relational capital disclosure is likely to increase. The prediction is as follows:

> H_2: There is a positive relationship between board independence and relational capital disclosure.

Multiple Directorships

Haniffa and Hudaib (2006) define multiple directorships as the existence of directors who sit on more than one board. In Malaysia, multiple directorships is a common practice among the public listed companies (Haniffa & Cooke, 2005). Prior research found that large companies tend to have multiple directorships than small companies to form more relationships with external parties (Booth & Deli, 1996). However, too many directorships limit the ability of directors to provide meaningful contribution to the company because of time constraint (Benson, Davidson, Davidson & Wang, 2015). As such, multiple directorships is not usually beneficial to companies.

The research on multiple directorships and firm performance in Malaysia (except for Tan, 2005; Haniffa & Hudaib, 2006) is limited. Tan (2005) and Sarkar and Sarkar (2009) found that multiple directorships improve company performance. This study suggests that multiple directorships help companies in developing relationship with external parties. The relationship leads to networking that can be utilized by companies in increasing their performance. The signaling point of view suggests that, these networks are important assets to the companies, so it is expected that managers have the intention to provide signal to users. Therefore, consistent with Alfraih (2016), we expect that as multiple directorships increases, disclosure of relationship capital increases.

H₃: There is a positive relationship between multiple directorships and relational capital disclosure.

Ownership Structure

Ownership structure is another important factor that can determine corporate disclosure level. In this study, the impact of ownership structure in terms of management, family, institution and government ownership on relationship capital disclosure is analysed.

Managerial Ownership

Managerial ownership is the percentage of shares owned by the management (Eng & Mak, 2003). This practice reduces agency problem because managerial share ownership helps to align the managers' interest

with the owners. Therefore, consistent with Jensen and Meckling (1976), companies owned by the management tend to disclosure information than other firms to increase the company liquidity. However, higher ownership by managers reduces the necessity to provide voluntary disclosure, resulting in lower disclosure (Eng & Mak, 2003; Mohd Ghazali, 2007; Chau & Gray 2010; Haddad, AlShattarat, AbuGhazaleh, & Nobanee, 2015). The findings are consistent with signaling theory, in which the owners have inadequate motivation to signal information to outsiders as their share ownership increases. As such, it is expected that as managerial ownership increases, relational capital disclosure decreases.

H$_4$:   There is a negative relationship between managerial ownership and relational capital disclosure.

Family Ownership

The presence of family ownership and family members on the board of directors are traditional characteristics of businesses in Malaysia (Claessens, Djankov & Lang, 2000; Mohd Ghazali & Weetman, 2006), and other Asian countries (Ho & Wong, 2011). Prior literature such as Haniffa and Cooke (2002), Mohd Ghazali and Weetman (2006), Chow and Gray (2010) and Al-Akra and Hutchinsons (2013) and Haddad, AlShattarat, AbuGhazaleh and Nobanee (2015) found evidence that family influence in company influence voluntary disclosure practice downwards. This practice is consistent with two effects i.e. alignment effect versus entrenchment effect. Alignment effect of family ownership and majority of other shareholders reduces the intention to signal information. The demand for disclosure is reduced since a significant shareholding portion is held by family members. Thus, the motivation to disclose information to get better external financing contracts gets lesser. The trust and culture among family members become a factor that reduces signaling motivation. However, according to entrenchment effect, the positioning of family members on board and management team leads to improper governance practice, which results in expropriation activities. Therefore, Fan and Wong (2002) and Francis, Schipper and Vincent (2005) stated that such activity causes the owners to limit information flow to external parties to conceal their activities from being known by the outsiders. The family blocks their relational information to others because any relationship or connection may uncover their expropriation

such as tunneling activities. This argument implies that family owners may block or reduce relationship or connection signal to external parties. Thus, both arguments suggest that an increase family ownership result in lower relational capital disclosure.

> **H$_5$:** There is a negative relationship between family ownership and relational capital disclosure

Institutional Ownership

Ten largest companies in Malaysia are owned by institutional investors (Saleh, Zulkifli & Muhamad, 2010). In fact, institutional investors play crucial role in economic development by designing governance in the investee companies. Part of the governance process is to monitor the progress and performance of investee companies for corporate transparency and disclosure (David & Kochhar, 1996; Saleh, Zulkifli & Muhamad, 2010). Kim, Kitsabunnarat and Nofsinger (2004) suggest that voluntary disclosure is used as a mechanism by institutional investors to monitor companies. In addition, institutional investors invest on behalf of retail investors. Therefore, institutional investors are more aware of information demand from the retail investors. As such, prior studies found a positive relationship between voluntary disclosure and institutional investors (Barako, Hancok & Izan, 2006; Magena & Pike, 2005). Consistent with this finding, Iatridis (2013) found that quality disclosure is associated with institutional ownership. Overall, it is concluded that the information demand to monitor companies by institutional investors motivates companies to signal their private information in the form of voluntary disclosure. In addition, a higher voluntary disclosure also attracts more investment from institutional investors as company reputation increases. The company reputation increases if the information disclosure proves that the business is well accepted by the reputable business partners. It is proven that corporate reputation in regards to relational capital affects company competitive advantage (Wang, 2014). Therefore, an increase in institutional ownership results in an increase of relational capital disclosure:

> **H$_6$:** There is a positive relationship between institutional ownership and relational capital disclosure.

Government Ownership

Conventionally, there is negative effect of government ownership on corporate performance (Qi, Wu & Zhang, 2000; Wei, Vogel, Ku & Zakalik, 2005; Lin & Zhang, 2009). This is because companies need to allocate political fund (Sapienza, 2004) for political intervention in government-owned companies (Gul, 2006; Johnson & Mitton, 2003). In Malaysia, government-linked companies (GLC) are directly controlled by the government through equity ownership by its investment arm, Khazanah Nasional Berhad. These companies are from a range of sectors i.e. financial, communication and media, utility, information technology and transportation. The relationship between government ownership and relational capital is positive for a number of reasons. First, consistent with the government's aspiration to develop a knowledge-based economy, the implementation of this policy is to be conducted in GLCs. In fact, relational capital is important in a knowledge-based economy. Therefore, a higher government ownership results in higher relational capital disclosure. Second, companies influenced by government tend to form relationship or connection (including political connection) than other companies. These connection is deemed as maximization value by the management to assure a long term sustainability for the company, thus companies are inclined to disclose the information. A study by Chen, Ariff, Hassan, and Mohamad (2013) suggest that there is higher value of politically connected companies compared to non-politically connected companies "due to the expected value of preferential treatments, preference in project selections and access to state benefits" (page 477). Third, government acts on behalf of the public at large. Due to the pressure to present good investment made in the parliament, government may request investee companies to provide a comprehensive report regarding the strength of the companies by voluntarily disclosing relational capital. Thus, consistent with Al-Janadi, Abdul Rahman and Alazzani (2016), it can be expected:

H_7:   There is a positive relationship between government ownership and relational capital disclosure

RESEARCH METHOD

However, this research sample focused on companies in technology industry that are listed on the Main and ACE Market of Bursa Malaysia. Technology-based companies were chosen because their business activities and operation rely more on intellectual capital (and hence relational capital) than other industries. In general, companies in the technology industry disclose 44% of relational capital items, 38% of structural capital items and 18% of human capital items.

According to prior research (Guthrie & Petty 2000; Brennan 2001; Bozzolan, Favotto & Ricceri, 2003; Abeysekara & Guthrie 2004), the data was collected from published annual reports in 2011 to 2013. Annual report is company document that is issued to the public either in printed (Campbell, 2000) or online form (Kamarulbaraini & Khairul 2005; Iqbal 2005), which has a significant influence on capital market and public perception about the company (Anderson & Epstein, 1995). The latest annual reports available at the time of this study was in 2013. The annual reports were obtained from the Bursa Malaysia website. There were 229 technology companies involved and the breakdown according to year and type of market is as follows:

Table 1: Sample

Year	Number of Observations		
	2013	**2012**	**2011**
Main Market (Technology Industry)	21	30	31
ACE Market	22	63	62
TOTAL	43	93	93

The dependent variable is the level of relational capital disclosure (*RCD*). There are seven (7) independent variables tested in this study namely board size (*BRDSIZE*), board independence (*BRDIND*), multiple directorship (*MULTIDIR*), managerial ownership (*MGROWN*), family ownership (*FAMOWN*), institutional ownership (*INSTOWN*) and government ownership (*GOVOWN*). Control variables are company size (*COSIZE*), leverage (*LEV*) and profitability (*PROFIT*).

$$RCD_{it} = \beta0 + \beta1BRDSIZE_{it} + \beta2BRDIND_{it} + \beta3MULTIR_{it} + \beta4MGROWN_{it} + \beta5FAMOWN_{it} + \beta6INSTOWN_{it} + \beta7GOVOWN_{it} + \beta8COSIZE_{it} + \beta9LEV_{it} + \beta10PROFIT_{it} + \varepsilon_{it} \ldots(1)$$

RCD	=	Relational capital disclosure
B	=	Coefficient
BRDSIZE	=	Board size
BRDIND	=	Board independence
MILTIDIR	=	Multiple directorship
MGROWN	=	Managerial ownership
FAMOWN	=	Family ownership
INSTOWN	=	Institutional ownership
GOVOWN	=	Government ownership
COSIZE	=	Company size
LEV	=	Leverage
PROFIT	=	Profitability
E	=	Errors
i, t	=	Company and year subscripts, respectively

Relational capital disclosure (RCD) is measured based on the total score of relational capital index. The index is developed based on conceptual model of Goerzen (2007) and Garcia-Meca & Martinez (2007). From "alliance network" standpoint, Goerzen (2007) suggests that geographical diversity, repeated partnership, network size, international experience are among the factors that can determine company performance due to reduction in transaction cost. Based on this view and prior literature, Goerzen (2007) views companies tend to form networking with other companies to improve market access, reduce innovation time span and complement technology needed for performance. Overall, networking is viewed as an effort to reduce cost and uncertainties as well as creating competitive advantage. Due to the advantages, companies have the intention to disseminate the information regarding alliance network or relational capital to the stakeholders. Based on the model and prior literature, an index of relational capital was developed. It appears that Garcia-Meca & Martinez (2007) index is not comprehensive. Based on Goerzen (2007), four (4) elements were added to the index namely foreign ownership commitment, commitment in foreign subsidiary, repeated partnership and business geographical diversity. This study makes an improvement on the index, in which there are nine elements (9) that cover

sixteen (16) items in the index (see Appendix 1). The elements were not used in the measurement of dependent variable but only used as a guideline from the theory to derive the items. A non-weighted dichotomous approach (0,1) was applied. A value of one is given to an item if there is any disclosure about the item, and zero otherwise. The total value of for items disclosed within each company is regarded as Observed Disclosure (OD). While, in general a maximum point of 16 i.e. the Total Disclosure (TD) items of the index will become the denominator.

Data on the index was collected manually based on disclosure in company annual report. To deal with inherent judgment limitation and subjectivity, two coders and test on the difference in the coding were made to ensure data consistency. Adjustments were made where necessary. Then, the total disclosure score observed for each company (*OD*) was divided by the maximum disclosure score a company could get (*TD*), representing the relational capital disclosure (*RCD*) level. This study also adjusted non-relevant items, where the items will be deducted from the total denominator.[4] The formula to measure Relational Capital Disclosure is as follows:

$$RCD = \frac{\Sigma OD}{\Sigma TD} \quad \text{............... (2)}$$

The definition of independent variables is as presented in Appendix 2. The table summarizes measurement of variables used in this study. As indicated Table 1, company size (*COSIZE*), leverage (*LEV*) and profitability (*PROFIT*) are predicted to have positive relationship with relational capital disclosure. Company size, which is related to available resource, is predicted to have positive relationship with disclosure level (Ahmed & Courtis, 1999; Eng & Mak, 2003 Lopes & Rodrigues, 2007). On the other hand, leverage is related to committed costs which give rise to business risk (Embong, Mohd Saleh & Hassan, 2012). Thus, to reduce the perceived risk, companies tend to provide more disclosure. Also, profitable companies have the incentive to distinguish themselves from less profitable companies (one way to do this is through voluntary information disclosure) to raise capital on the best available terms (Meek, Roberts & Gray, 1995). The effect of board listing or ACE market (*MAIN*) on *RCD i*s included. Young companies that belong

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4 Almost all observations have the same number of denominator, except two companies without foreign ownership and commitments. We deduct two items i.e. foreign ownership and foreign subsidiaries from the denominator of these two companies.

to AE market (has less number of years prior to listing),[5] are more eager to get external financing. Thus, these companies have more incentive to pass information through relational capital disclosure to get favorable terms from financier, as compared to companies from the Main market. As such, *MAIN* is predicted to be negatively related to relational capital disclosure.

FINDINGS AND DISCUSSION

Untabulated results shows that there are several popularly disclosed relational capital elements in annual reports of companies. It appears that the most disclosed element is customer relationship element i.e. related to trademark/brand/image and conference and training related to customers, followed by community relationship i.e. related to educational support and social responsibility. The results indicate that most companies have the intention to upgrade their reputation by signaling (disclosing) their trademark or brand or image in the annual report. This signaling is also highlighted in mission statement, where the forward looking information are disclosed to gain readers' attention. Overall, these types of information are deemed important by the signaler such as company management for value creation to the customers, community at large, or shareholders (business itself).

An example of relational capital disclosure related to new business relationship is highlighted in HiTech Padu Berhad 2013 Annual Report, Review of Operations section, page 65: "We are proud to declare that the year 2013 saw HeiTech traversing foreign shores in the form of providing niche expertise to clients in East Asia, the Middle East and Africa, leveraging on the experience as one of the key players in elevating the Public Sector services to what it is today."

Regarding disclosure of strategic alliance through agreement, an example is as follows: "In April 2013, ECS Astar signed a distribution agreement with Lenovo, the world's largest personal computer ("PC") maker, to introduce its entire range of smartphones to the domestic market. This effectively cemented our business relationship with Lenovo, which first

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5 Due to different listing requirements in the ACE Market (previously known as MESDAQ Market), accompanies are relatively smaller and younger than those listed on the Main Market of Bursa Malaysia (Md Nor, Mohd Saleh, Jaffar & Abdul Shukor, 2010)

commenced in 2011 for notebook and desktop PCs. In the same month, ECS Astar also signed a business-to-business distribution agreement with ECSB's long-time partner Samsung Malaysia Electronics Sdn Bhd to distribute its entire range of IT and mobility products to the enterprise market." (ECS ICT Berhad, 2013 Annual Report, Review of Operations section, page 11). The disclosure is important for users to assess the company value creation ability in the future.

Table 2 shows the total relational capital disclosure of the companies by years. Overall, there were 32.93% relational capital disclosure provided by companies in 2011, as compared to 32.33% in 2012 and 51.89% in 2013. There was a sharp increase in the relational capital disclosure in 2013. The increase in the disclosure level signifies the importance of relational capital in value creation process among the preparers.

Table 2: Relational Capital Disclosure

Items	2011	%	2012	%	2013	%	Total	%
List of main customers	13	13.98	2	2.15	13	30.23	28	12.23
Market share (%)	18	19.35	15	16.13	18	41.86	51	22.27
New customers	19	20.43	31	33.33	19	44.19	69	30.13
Loyalty programme	19	20.43	17	18.28	19	44.19	55	24.02
Customers satisfaction	22	23.66	17	18.28	22	51.16	61	26.64
Conference or training related to customers	37	39.78	50	53.76	37	86.05	124	54.15
Product fulfil customers need	17	18.28	19	20.43	17	39.53	53	23.14
Trademark/ Brand/ Image	68	73.12	79	84.95	36	83.72	183	79.91
Education support Community projects	47	50.54	64	68.82	24	55.81	135	58.95
Joint ventures Merger and acquisition Partnerships	49	52.69	45	48.39	25	58.14	119	51.97
Supply chain Distribution channel	21	22.58	17	18.28	20	46.51	58	25.33
Partnership agreement Strategic alliance and contract	35	37.63	26	27.96	22	51.16	83	36.24
Average age of foreign ownership	39	41.94	36	38.71	20	46.51	95	41.48
Average age of foreign subsidiaries	39	41.94	36	38.71	21	48.84	96	41.92
Total repeated partnerships	9	9.68	2	2.15	15	34.88	26	11.35
Sales by country or geographical segments	38	40.86	25	26.88	29	67.44	92	40.17

Descriptive statistics of the data are provided in Table 3 below. The mean of relational capital disclosure is 37.2% across the three-year period. This result is lesser than the study done by Goh and Lim (2004), which was 41%, while an earlier study by Haniffa and Cooke (2002) reported 31.3% relational capital disclosure level. The difference was due to different sample period. Board size is used to reduce heteroscedasticity problem. It appears that on average, 45.3% of the total board members consist of independent members, nearly 20% of the members have three or more directorships in other companies, and about 17.7% of the shares are owned by management.

Table 3: Descriptive Statistics

	Mean	**s.d.**
1. RCD	0.372	0.219
2. BRDSIZE	0.816	0.108
3. BRDIND	0.453	0.150
4. MILTIDIR	0.197	0.204
5. MGROWN	0.177	0.189
6. FAMOWN	0.009	0.042
7. INSTOWN	0.035	0.095
8. GOVOWN	0.002	0.015
9. COSIZE	7.571	0.672
10. LEV	0.032	0.094
11. PROFIT	-0.087	0.600

Based on correlation results presented in Table 4, the results appear to be consistent with our expectation. Multiple directorships, which represents director's network is positively correlated with relational capital disclosure. Besides, there is a positive correlation between relational capital disclosure and institutional ownership, which indicates that pressure from sophisticated investment companies (the institutional investors) is effective to demand for relational capital disclosure. The correlation also suggests the higher managerial ownership, the lower relational capital disclosure, which is consistent with predicted relationship. Other than those correlations, it is also observed that board size is negatively correlated with board independence (r=-0.389), suggesting that additional board members that contribute to large board size are mainly non independent members. As company size increases, multiple directorships also increase. This result suggests the need for reputable but "busy" directors in large companies as compared to

small size companies. Overall, the correlation analysis also reveals that the highest correlation is only 48.9%, which is way below the threshold, raising a concern regarding multicollinearity issue. However, the existence of multicollinearity problem was tested by using VIF (variance inflation factor). Each variable was scanned for outliers. To deal with outliers, profitability variable was winsorised at the top and bottom 1% i.e. to the top and bottom 1% level of the ranked variable. Winsorising technique limits outlier effect but at the same time retains the statistical properties of the variable.

Table 4: Correlation Analysis

	1	2	3	4	5	6	7	8	9	10	11
1. RCD	1.000	-.003	.023	.224**	-.191**	-.042	.138*	.076	.109	.037	.033
2. BRDSIZE	0.035	1.000	-.389**	.027	.036	-.036	.053	.088	.226**	.085	.160*
3. BRDIND	0.000	-.331**	1.000	-.037	-.071	.007	.051	.023	-.091	-.059	-.012
4. MILTIDIR	0.277**	.019	-.068	1.000	-.081	-.048	.073	-.131*	.141*	.077	.081
5. MGROWN	-0.196**	.017	-.071	-.062	1.000	.133	-.023	.099	-.096	.121	.033
6. FAMOWN	-0.067	.010	-.039	-.102	.173*	1.000	-.067	.123	-.065	-.051	.025
7. INSTOWN	0.177**	-.032	.069	.107	-.074	-.018	1.000	.025	.032	.154*	.022
8. GOVOWN	0.082	.105	.001	-.102	.051	.200**	-.011	1.000	.011	.008	-.055
9. COSIZE	0.154*	.145*	-.028	.101	-.035	-.067	-.010	.051	1.000	.404**	.320**
10. LEV	0.025	-.002	.090	.102	.057	.033	-.007	.000	.130*	1.000	.033
11. PROFIT	0.057	.058	.086	-.031	.065	-.118	.017	.012	.489**	-.153*	1.000

Note: Figures above (under) diagonal represents Spearman (Pearson) correlation coefficients. **, * denotes significant at 1% and 5% levels (2-tailed) respectively.

The multivariate regression results are presented in Table 4. The result shows that the OLS model is significant and 32% variance in relational capital disclosure are explained by independent variables. The second column shows random effect of the panel data analysis. The low VIF level suggests that multicollinearity is not a major concern. Both results are consistent. It appears that the variables that are significantly related to relational capital disclosure are strongly supported by signaling theory. As predicted, multiple directorships (H_3), managerial ownership (H_4), institutional ownerships (H_6) and government ownership (H_7) are significantly related to relational capital disclosure.

The result for multiple directorships (H_3) is consistent with prior literature on voluntary reporting using Malaysian data (Haniffa & Cooke, 2005) and non Malaysian data (Alfraih, 2016). Multiple directorships have helped companies to develop relationship with external parties and because networking is important for companies, managers have the intention to provide signal to users

However, if the companies have large managerial ownership, relational capital disclosure is expected to be reduced (H_4) i.e. managerial ownership is found to have negative relationship with relational capital disclosure. The result is found because share ownership by the management aligns the interest of shareholders with the management. As their interests are aligned, the necessity to provide additional disclosure is reduced, thus reducing the incentive for managers to signal information through relational capital disclosure. This result is consistent with a majority of prior literature such as Haddad, AlShattarat, AbuGhazaleh and Nobanee (2015).

The consistent with prior literature, information are disseminated due to demand of information from institutional owers (D'Souza, Ramesh and Min Shen, 2010; Iatridis, 2013). This result implies institutional owners are aware of the demand for information from the retail investors who invest in their company provides sufficient pressure for the company to disclose relational capital information (H_6).

The result for government ownership is consistent with Eng and Mak (2003) and Al-Janadi Abdul Rahman and Alazzani (2016), that government ownership influences voluntary disclosure positively (H_7). The government, who represent the community at large may demand information to be disclosed, particularly with respect to business relationship with the community. It can also be said that the government that has aspirations to develop a knowledge based economy wanted to show the implementation of such policy is taken place in companies that they have investment in.

Overall, these results imply that networks created from multiple directorships, institutional ownerships and government ownership influences positively the signaling behavior of managers, while internal ownership by management reduces the motivation to signal information. Therefore, H_3, H_4, H_6 and H_7 are supported.

Table 5: Multivariate Regression Results (N=229)

Variables	Predicted Sign	OLS Coefficients (t-Stats)	Panel Data Random effect Coefficients (z-Stats)
Constant	#	-0.456* (-1.867)	-0.449* (-1.900)
BRDSIZE	+	0.044 (0.319)	0.131 (0.326)
BRDIND	+	-0.043 (-0.426)	-0.025 (0.980)
MILTIDIR	+	**0.285*** (4.055)**	**0.274*** (4.140)**
MGROWN	-	-0.172** (-2.249)	-0.174** (-2.350)
FAMOWN	-	-0.243 (-0.757)	-0.375 (-1.150)
INSTOWN	+	**0.498*** (3.113)**	**0.498*** (3.510)**
GOVOWN	+	**1.551** (1.735)**	**1.862** (2.050)**
COSIZE	+	**0.106*** (3.798)**	**0.098*** (3.710)**
LEV	+	0.056 (0.380)	0.055 (0.712)
PROFIT	+	-0.008 (-0.253)	-0.014 (-0.540)
MAIN	-	**-0.160*** (-4.714)**	**-0.172*** (-5.040)**
2011	#	0.008 (0.251)	-
2013	#	**0.125*** (3.216)**	-
R²		0.320	0.238
Adjusted R²		0.272	-
		F Stat = 6.651***	Wald Chi2 = 66.98***
Highest VIF		1.936	Hausman Test not significant

Note: # No particular direction is expected. ***, **, * denotes significant at 1%, 5% and 10% levels (2-tailed) respectively.

It is also interesting to note that although not hypothesized, younger companies (other than companies from the Main board –i.e. *MAIN*) are disclosing more relational capital information. This result is consistent with signaling theory that while lacking in terms of historical track records and assets, young companies have stronger incentives to signal information that may have positive impact to the company in the future.

The results however do not support H_1, H_2 and H_5. There are two main effects of board size (H_1) i.e. it increases the ability of the board to make decision or it reduces the coordination within the board. Since these two effects suggest different effects on voluntary relational capital disclosure, the effect can be cancelling each other. The first effect may occur when board size is small, while the second effect may dominate when board size is large. We test on the non-linearity of board size relation with *RCD* in additional analyses.

Although theoretically independent directors are related to effective monitoring on company activities (H_2), the existence of the directors does not affect the level of relational capital disclosure. The result implies that independent directors who are expected to represent other than blokholders and controlling owners do not have sufficient motivation to demand for more relational capital information to be disclosed. The result is somewhat contradict prior literature (such as Eng & Mak, 2003; Haniffa & Cooke, 2005; Li et al., 2008; Patelli & Prencipe, 2007; Lim, Matolcsy & Chow, 2007; Hossain, 2008; Alfraih, 2016; Torchia & Calabrò, 2016). Some researchers relate the effectiveness of independent board members to grey directors i.e. while complying with the definition of independence, they are not truly independent. Finally, the effect of family ownership (H_5). While it is expected to have a negative relationship with voluntary relational capital disclosure, the result is not significant. Further analysis of the nature of family owners is needed to find the reasons. Such investigation can be done utilizing a different theoretical framework on family dynamics and we recognize that it is beyond the scope of this study.

Additional Analyses

To test the possibility of non-linearity relation between board size and relational capital disclosure, BRDSIZE^2 was introduced to the equation.

While the results for other variables are similar, BRDSIZE and BRDSIZE^2 are insignificantly related to relational capital disclosure.

To deal with nonmorality of the residuals, normal transformation procedure as suggested by Cooke (1998) is employed in the multivariate analysis. The procedure effectively assigns rank to the non normal data and the ranks are transformed into numbers on normal distribution. Following method done by Young (1998), Van der Wardean approach of normal transformation is employed. This procedure is extensively used for corporate disclosure (Mokhtar & Mellett, 2013). The equation was estimated by using transformed data and the results are intact.

Bootstrapping and jacknife alternatives are also used to reestimate the standard errors. Bootstrapping is a general nonparametric approach and does not require distributional assumption (such as normally distributed errors), thus a more accurate inference can be drawn when the data is not well-behaved or when the sample size is tiny. The results are similar to Table 4.

CONCLUSION

In this study, the agency and signaling theories are used to explain a specific relational capital disclosure in company annual report. This study contributes to the literature by examining the relationship between corporate governance elements (such as the characteristics of Board of Directors and the ownership structure of companies) and relational capital disclosure. Different from prior literature, alliance or network view is used in selecting variables and developing measurement and model. By doing this, the explanation on standing agency theory on disclosure is extended, with additional insight from signaling and network view. Relational capital disclosure is a good case to test this view.

The results indicate that multiple directorships, institutional and government ownerships positively affect relational capital disclosure. Managerial ownership, on the other hand reduces managerial incentive to signal such information. In addition, younger companies are found to have higher incentive to disclose relational capital information as compared to more established companies. The results show that the important corporate

governance determinants of relational capital disclosure can be predicted when the management signaling intention and network or alliance argument are considered.

Even the signaling and network perspective on relational capital disclosure is significant, the use of this perspective on other types of disclosure and public policy remains ambiguous. Future research may address this issue. The findings are useful for regulators in emerging countries with highly networked economy, whereas business and personal networks are important for company sustainability. However, specific character of different market also affects the management intention. Therefore, further studies on other markets may help in understanding the application of these perspectives on disclosure.

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APPENDIX 1: RELATIONAL CAPITAL DISCLOSURE INDEX

No.	Elements	Items	Note (0,1)
1.	Customer relationships	List of main customers	
2.		Market share (%)	
3.		New customers	
4.		Loyalty programme	
5.		Customers satisfaction	
6.		Conference or training related to customers	
7.		Product fulfil customers need	
8.		Trademark/ Brand/ Image	
9.	Community relationships: Social responsibility	Education support Community projects	
10.	Investments in new ventures	Joint ventures Merger and acquisition Partnerships	
11.	Supplier and distributor network	Supply chain Distribution channel	
12.	Strategic alliance and agreement	Partnership agreement Strategic alliance and contract	
13.	Foreign ownership commitment	Average age of foreign ownership	
14.	Commitment in subsidiaries	Average age of foreign subsidiaries	
15.	Repeated partnerships	Total repeated partnerships	
16.	Business geographical diversity	Sales by country or geographical segments	

APPENDIX 2: DEFINITION OF INDEPENDENT VARIABLES

Independent variables	Expected relationship with dependent variable	Range of values	Measurement (all measurement items are obtainable from annual reports)
BRDSIZE	+ H_1	>1	Total number of board members (Mohd Saleh, Mohd Iskandar & Rahmat, 2005)
BRDIND	+ H_2	0-1	The ratio of independent to total board members (Mohd Saleh, Mohd Iskandar & Rahmat, 2005)
MILTIDIR	+ H_3	0-1	Percentage of external directors serving more than 3 corporate boards (Mohd Saleh, Mohd Iskandar & Rahmat, 2005)
MGROWN	- H_4	0-1	Percentage of share ownership by executive directors (Mohd Saleh, Mohd Iskandar & Rahmat, 2005)
FAMOWN	- H_5	0-1	Percentage of share ownership of more than 1% by families of the members of the board (Munir, Mohd Saleh & Yatim, 2013; Mohd Saleh & Omar 2014)
INSTOWN	+ H_6	0.05-1	Percentage of share ownership of more than 5% by institutional investors (e.g. Employees Provident Fund, insurance, Permodalan Nasional Berhad, commercial and investment banks) (Ahmad, Mohd Saleh, Mohd Iskandar & Alias, 2011)
GOVOWN	+ H_7	0.05-1	Percentage of share ownership of more than 5% by the Government Linked Companies
COSIZE	+ (Guthrie, Petty& Ricceri, 2006)	>1	Log of total assets (Guthrie, Petty & Ricceri, 2006)
LEV	+ (Gerpott, Thomas & Hoffmann, 2008; Hossain, Perera & Rahman,1995)	0-1	The ratio of total liability to total assets (Mohd Saleh, Mohd Iskandar & Rahmat, 2005)
PROFIT	+ (Singhvi & Desai 1971; Patton & Zelenka 1997; Owusu-Ansah 1998)	Negative to positive	The ratio of net profit to total assets (Hassan, Mohd Saleh, Yatim & Che Abdul Rahman, 2012)
MAIN	-	1,0	If a company belongs to the Main board = 1, otherwise, 0