

DO BOARD SIZE AND NON-EXECUTIVE DIRECTORS AFFECT INTELLECTUAL CAPITAL DISCLOSURE? SRI LANKAN BANKING INDUSTRY

Ajanthan, A and Ramesh, S
University of Jaffna, Sri Lanka

Abstract

Investment on intangibles has been widely accepted as key resource in creating value and competitive advantage for firms. This study therefore examines the relationship between board size, independent non-executive directors and voluntary disclosures of intangibles for a sample of Sri Lankan banks from 2017 to 2019. Intellectual capital disclosure is measured by a disclosure index score, supported by word count of intellectual capital disclosure. Board size and independent non-executive directors are explanatory variables of the study. Results of the analysis indicate significant positive relationship between independent and dependent variables. Further, adjusted R2 says that approximately 56% of influences on disclosures of intangibles are made by board size and independent non-executive directors which is significant at 95% confident level ($f=13.31$; $p<0.001$). The results of this study may be useful for policy makers, government agencies, regulatory bodies as well as management of the firms to make better understanding about the importance and necessity of having mandatory requirement of corporate governance and disclosures of intangibles.

Keywords: intellectual capital disclosure; board size; independent non-executive directors

1. Introduction

Conventional Firm Theory suggests that firms maximise their value by making decisions to maximise the shareholders' wealth (Graham, Harvey, & Puri, 2015). Intellectual capital (IC) disclosure, a key input to achieving that goal, IC plays an increasingly important role in sustaining competitive advantages and creating corporate value (Bollen, Vergauwen, & Schnieders, 2005). Kristandl and Bontis (2007) 'IC is a portfolio of strategic firm resources that enable an organization to create sustainable value'. Whereas, Serrat (2011) documents that IC is a core asset of organisations and that it should be circumscribed better (Serrat, 2011). In recent years, there has been increasing dissatisfaction with traditional financial reporting and its ability to provide stakeholders with sufficient information on a company's ability to create wealth (Boesso & Kumar, 2007; Bozzolan, Favotto, & Ricceri, 2003; Francis & Schipper, 1999; Lev & Zarowin, 1999). As consequence, raising the need for a different type of information such as disclosure of IC information which brings considerable value to a firm (Abeysekera & Guthrie, 2005; Guthrie, Petty, & Ricceri, 2006) because of the main objective of IC disclosure is to satisfy the information needs of users in a manner that enables both decision making and accountability (Guthrie &

Petty, 2000; Firer & Williams, 2003) and finally inform the stakeholders about the quality and value of the firm (Spence, 1973). In addition, Boesso and Kumar (2007) state that voluntary disclosure is aimed at providing a clear picture to stakeholders about the long-term survival of the firms by reducing information asymmetry and agency conflicts between principal and agent. In this context, informativeness of voluntary disclosure reduces the cost of capital through minimizing the agency cost (Dhaliwal, Li, Tsang, & Yang, 2011) and increases the firm value by wealth maximization of shareholders (Al-Akra & Jahangir-Ali, 2012). Agency theory suggests that corporate governance as a mechanism to reduce these conflicts by monitoring managers' performance and aligning management's goal with those of the stakeholders, voluntary disclosure is another way to reduce agency cost as well (Brickley & James, 1987; Fama & Jensen, 1983; Jensen & Meckling, 1976). Corporate governance is a set of control mechanisms designed to monitor and ratify managerial decisions and to ensure the efficient operation of a company on behalf of its stakeholders (Donnelly & Mulcahy, 2008). Monitoring function of corporate governance structure significantly influences the extent and quality of voluntary disclosure as well as the quality of corporate reporting is not

influenced simply by the quality of accounting standards but also by the nature and quality of corporate governance mechanisms (Elshandidy & Neri, 2015). Donnelly and Mulcahy (2008) argue that effective corporate mechanisms could voluntarily increase the level of corporate disclosure, over and above that which is mandated by legislation or stock exchange rules. In contrast, poor financial disclosure often misleads shareholders and has adverse effects on their wealth, as suggested by the wave of recent financial reporting scandals (Karamanou & Vafeas, 2005).

The prior literatures illustrate that corporate governance is an important tool which has the ability to make an influence of the voluntary disclosure in the annual reports of the firms (Ahmed Haji & Mohd Ghazali, 2013; Cerbioni & Parbonetti, 2007; Hidalgo, Garcia-Mega, & Martinez, 2011; Li, Pike, & Haniffa, 2008). Empirical studies provide inconclusive outcomes on the role of corporate governance on IC disclosure (Abeysekera, 2008; Abeysekera & Guthrie, 2005; Ahmed Haji & Mohd Ghazali, 2013; Keenan & Aggestam, 2001; Rodrigues, Tejedo-Romero, & Craig, 2014). Some of the studies reveal that there is a significant association between board size, board independence, CEO duality, type of auditor and audit

committee and IC disclosure (Ahmed Haji & Mohd Ghazali, 2013; Li, Pike, &, 2008; Abeysekera, 2010; Rodrigues, Tejedo-Romero, & Craig, 2014). However, other studies failed to detect the relationship between corporate governance and IC disclosure (Nalikka, 2009). These mixed outcomes in the extant literature and a dearth of Sri Lankan studies (Abeysekera, 2008; Abeysekera & Guthrie, 2005), suggest a significant gap in understanding corporate governance and IC disclosure.

This study seeks to reduce a gap in the extant literature on the relationship between board size, independent non-executive directors and IC disclosure in Sri Lanka as an example of developing market. In Sri Lanka disclosing intellectual capital is still not highly used by firms and has not been formally regulated. IC would contribute in enhancing corporate governance level through changing management style toward structuring and formation of relevant strategies and policies to protect investors and users of financial information and reducing the agency problem (Al-Musalli & Ismail, 2012). This study would hopefully benefit academics, researchers, policy-makers and practitioners in Sri Lanka and other similar developing countries through examining the impact of corporate

governance on IC disclosure and pursuing strategies to improve the current status of it.

1. Research questions

RQ1: What is the relationship between board size, independent non-executive directors and intellectual capital disclosure of Sri Lankan firms?

RQ2: What is the impact of board size and independent non-executive directors on intellectual capital disclosure of Sri Lankan firms?

2. Research objectives

The primary objective of the study is 'to examine the impact of board size and independent non-executive directors on intellectual capital disclosure.

Secondary objective

To identify the relationship between board size, independent non-executive directors and intellectual capital disclosure.

3. Review of literature and hypotheses development

Corporate governance is a framework of legal, institutional and cultural factors shaping the patterns of influence the stakeholders exert on managerial decision making (Weimer & Pape, 1999). The justification for considering corporate governance that the board of directors manages information disclosure in

annual reports and therefore elements of boards may be important. Holland (2006) says that boards of directors are at heart of corporate financial communications, having active roles in the disclosure process of the firms. Agency theory provides a framework for linking voluntary disclosure behaviour to corporate governance, whereby control mechanisms are designed to reduce the agency problem arising from the separation between ownership and management (Welker, 1995). This argument can be connected to IC disclosure, whereby management can determine the level of disclosure and thereby reduce investor uncertainty relating to the impact of IC on the firm's value. High IC disclosure is therefore expected to provide a more intensive monitoring package for a firm to reduce opportunistic behaviour and information asymmetry. Adoption of internal control devices, such as corporate governance mechanisms may enhance monitoring quality in critical decisions about intellectual capital investment and performance (Keenan & Aggestam, 2001) and hence reduce the scope for managerial opportunism and reduce benefits from withholding information, as a consequence IC disclosure in annual reports should be improved.

Board size (BS)

Board size measures total number of directors serves on the board (Gill & Biger, 2013), this number may affect how directors carry out their responsibilities (Jensen, 1993). According to resource dependence theory, board size is important in managing company's capital needs and the regulatory environment (Pfeffer & Salancik, 1978). In addition, it can be a 'resource' that firms can use to inform investors about resources that are not disclosed in traditional financial statements (Abeysekera, 2010). The effective board size for optimal functioning is the subject of continuing debate in the literetaure. In Sri Lanka, the code of best practice on corporate governance (2017) suggests that every public company should be headed by an effective board, which should direct, lead and control the company. Although, there is no precisely recommended size for a board. From an agency theory view, it can be argued that a larger board is more likely to detect agency problems because it offers greater expertise, management oversight and access to a wider range of resources. Further, a greater number of directors reduce uncertainty and information asymmetries because there are more people to carry out the task (Fauzi & Locke, 2012). Similarly, resource dependence theory argues that larger

board introduce a diversity of vital resources and links with the company's external environment, reducing depend encies and increase access to resources, thus improving decision making (Abeysekera, 2010; Pfeffer & Salancik, 1978) provides useful information and resources (He, Mahoney, & Wang, 2009). In contrast, Jensen (1993) and Lipton & Lorsh (1992) argue that bigger boards are less effective due to more complex cordination overwhelms any advantages gained from having more directors draw upon. Further Jensen (1993) claims that smaller boards can perform better, as when there are less than seven or eight members they are more likely to coordinate and commu nicate effectively, and are very easy for the CEO to control. Though, Spain regulatory requirements seem to suggest five to 15 members (Rodriguez-Fernandez, Fernandez-Alonso, & Rodriguez- Rodriguez, 2014). The empirical evidence has obtained mixed results regarding the association between IC disclosure board size. Abeysekera (2010); Mishari (2018);, Tejedo-Romero, & Craig (2016); Haji & Ghazali (2013) found a positive association between the board size and the level of voluntary disclosure. On the other hand, the works of (Cerbioni & Parbonetti, 2007; Lim, Matollcky, &, 2007) found a significant negative relationship between

board size and IC disclosure. There is a question whether board size would lead to more voluntary disclosure of IC. This above reasoning led to the following hypothesis:

H1: There is a positive association between board size and IC disclosure.

Board independence (INNED)

Haniffa and Cooke (2002) define that board independence is the proportion of independent non-executive directors to the total directors in the board. The board members must be careful and ignore conflicts of interest in decision making about the best interests of the company and shareholders. In line with this fact, Jensen and Meckling (1976) noted that Independent directors are needed on boards to control the opportunistic behaviour of non-independent directors. High proportion of independent directors on the boards support to strength the corporate governance mechanism and plays a supervisory role more effectively with related to non-financial information disclosure in the annual financial statements (White, Lee, & Tower, 2007). Further, Fama and Jensen (1983) point out that independent directors act as an internal mechanism of corporate governance to reduce agency problem between principal and agent by boosting management to disclose more infor-

mation in the financial statements. Based on resource dependency theory, Haniffa and Cooke (2002) note that more non executive directors provide wider expertise, prestige, contacts and also play a key role in influencing disclosure. Cerbioni and Parbonetti (2007) say that a sound corporate governance model characterised by, among other things, a board that is composed of a majority of external directors who play an active role in monitoring, is important in improving the overall quality of voluntary corporate disclosure. Besides, Li et al. (2008) also add that “the wider expertise and experience of non-executive directors on the board will encourage management to take a disclosure position beyond a ritualistic, uncritical adherence to prescribed norms, to a more proactive position reflecting the value relevance of intellectual capital to stakeholders.” According to the Colombo Stock Exchange (2013) listing guidelines, independent board members should not relate to a key employee, are independent from management, and have never worked at the firm or its subsidiaries, or for its consultants or major stakeholders. The Malaysian code on corporate governance recommends that there needs to be balance on the board of directors with at least a third of the board directors should be independent directors. It is consistency with corporate governance

rules as required by section 7.10 of the listing rules of the Colombo Stock Exchange (CSE). Empirical research on the association between independent directors and IC disclosure is inconclusive, due to perhaps the lack of real independence of “independent directors”. Because the concerns over the outside directors often refer to whether they are actually independent. There has been questions on whether independent directors in Sri Lanka are really independent, similar question has also been questioned in different countries (Li et al.,2008; Meng, 2009; Mohdghazali & Weetman, 2006). In this connection, prior IC disclosure studies that considered independent directors as a possible determinant of IC disclosure are mixed; some find that the independent directors are positively related with the board’s ability to influence IC disclosure decisions (Cerbioni & Parbonetti, 2007; Cheng & Courtenay, 2006; Garcia-Meca & Sanchez-Ballesta, 2010; Li et al.,2008), others find no relationship Ho and Wong (2001) and Brammer and Pavelin (2008), and yet others reveal negative relationship (Haniffa and Cooke, 2002; Rodrigues, Tejedoromero, & Craig, 2016). Based on this discussion, hypothesis 2 is:

H2: There is a positive association between independent non-executive directors and the IC disclosure.

4. Research approach and methods

Sampling design

This study investigates the relationship between board size, independent non-executive directors and IC disclosure of Sri Lankan banks listed on the CSE for financial years from 2017 to 2019. Banks are preferred sector for this study because this sector is one of the high IC intensive service sectors of the country (Guthrie, Petty, & Ricceri, 2007).

Dependent variable – IC disclosure index

To measure IC disclosure, the study utilized content analysis, a method that has been applied by prior literature in measuring IC disclosures (Muttakin, Khan & Belal, 2015; Li et al.,2008). IC disclosure index is a more appropriate measure for developing countries where level of disclosure tends to be low (Nurhayati, Brown, & Tower, 2006). This study applies framework tested by Muttakin et al. (2015) which provides comprehensive list of voluntary IC items divided into three categories such as human, relational and structural items.

Table 01- Intellectual Capital Checklist

	Human Capital	Relational Capital	Structural Capital
1	Number of employees	Brand	Intellectual properties
2	Know how	Customer satisfaction and loyalty	Management philosophy
3	Vocational qualifications	Quality standards	Corporate culture
4	Employee training	Company image/reputation	Processes
5	Employee education	Favorable contract	Systems
6	Work related knowledge	Business collaborations	Networking
7	Entrepreneurial spirit, innovativeness	Licensing agreements	Financial relations
8	Union activity	Franchising agreements	
9	Employee thanked	Distribution channels	
10	Employee involvement in the community	Market share	
11	Employee share and option scheme		
12	Employee benefits		
13	Profit sharing		
14	Health and safety		
15	Equity issues		

Source: *Muttakin, Khan & Belal (2015)*

A dichotomous procedure is also applied whereby a firm is scored one if an item included in the checklist is disclosed and zero if it is not disclosed. Accordingly, IC disclosure index is derived by computing the ratio of actual scores awarded to the maximum score attainable by the firm.

5. The research model

This study uses a regression analysis technique to examine the impact of board size and independent non-executive directors on the extent of IC disclosure. The regression equation is provided below:

$$ICDI = \alpha + \beta_1 BS + \beta_2 INNED + e$$

Where, ICD = Intellectual capital disclosure index (ICDI), average score of human, relational and structural capital disclosures.

BS = Total number of directors on the board

INNED = Proportion of independent non-executive directors to total number of directors (Proxy for board independence, %)

e = error term

6. Results and discussion

Descriptive statistics

Table 02 shows the descriptive statistics for the variables used in the study. The average intellectual capital disclosure score is 0.86 with the range of 0.30 (max-min). This implies that 86 percent of items were disclosed by the sample firms (banks) in their annual reports as voluntarily. Further the study reveals that structural capital disclosure, human capital disclosure and relational capital disclosure is 0.98, 0.89 and 0.71 respectively. This evidences that Sri Lankan banks are very well executed and aware of the significance of intellectual capital disclosure. The sample firms prefer to disclose more items related to

structural capital (mean= 0.98) than human (mean=0.89) and relational capital (mean=0.71). This result is very similar to Bruggen, Vergauwen and Dao (2009) who find that disclosure by Australian firms mainly occurs with regard to structural capital disclosure. Whereas Abeysekera and Guthrie (2005) who conclude that the most reported disclosure category was relational capital and the second most reported was human capital.

Average board size of Sri Lankan banks is 10 with maximum and minimum value of 12 and eight respectively. Even there is no any specific guidelines are given under CA Sri Lanka Code of best practice on Corporate Governance about board size of the listed firms, this pattern can be

perceived as larger board size like other emerging market countries (Malaysia, Indonesia etc). This result is supported with resource dependence theory as it says that larger board introduce a diversity of vital resources and links with the firm's external environment, reducing dependencies and increase access to resources, thus improving decision making (Abeysekera, 2010; Pfeffer & Salancik, 1978). On the other hand, average number of independent non-executive directors is 6.3 for sample firms. This result is complied with the guidelines of CA Sri Lanka Code of Best Practice which requires that minimum 1/3 portion of the board must be represented by independent non-executive directors.

	Mean	Min	Max	SD
Board size (BS)	10.0	8.00	12.0	1.33
Independent non-executive directors (BIND)	6.30	5.00	9.00	1.45
Average IC disclosure score	0.86	0.70	1.00	0.09
Human capital disclosure score	0.89	0.80	1.00	0.69
Relational capital disclosure score	0.71	0.40	1.00	0.19
Structural capital disclosure score	0.98	0.85	1.00	0.43

Source: STATA output

Correlation and regression analysis

In order to predict the influence of board size and independent non-executive directors on the extent of IC disclosure in the Sri Lankan sample banks, a multiple correlation and regression analysis was carried out. The results are shown in

Table 03 and 04. Both explanatory variables (board size and board independence) reveal positive relationship with IC disclosure. This is significant at 99% confident level ($p < 0.05$). This result emphasizes that larger board with more independent non-

executive directors will enhance the disclosure pattern of different intangible elements in the annual reports of the sample banks in Sri Lanka. This result further explains that listed banks in Sri Lanka seem to be fully transparent in terms of human capital disclosure,

relational capital disclosure and structural capital disclosure. This result partially similar to Muttakin et al. (2015) and Li et al. (2008) who reveal that board independence is one of the key determinants of intellectual capital disclosure in Bangladesh and UK respectively

Table 03- Pearson Correlation Analysis

	BS	BIND
Intellectual Capital Disclosure (ICD)	0.501***	0.687***

Source: STATA output

Table 04 indicates the value of r^2 and adjusted r^2 , 0.610 and 0.564 respectively. It denominates that approximately 56% to 61% of influence on the disclosures of intangibles caused by larger board size with presence of more outside directors. This influence is significant because p value is less than 5% significant level ($f=13.31$; $p=0.000$). This finding is well connected with both resource dependency theory and agency theory. Resource dependency theory says that increasing number of directors in the board may bring more intellectual resources as well as investment into the business. On the other hand, agency

theory reveals that increasing the proportion of independent outside directors in the board room will always lead to more independent and transparent activities and then rich disclosures of the items. This is consistent with the findings of previous studies (e.g. Li et al., 2008 in UK; Muttakin et al., 2015 in Bangladesh) these results indicate that independent directors in UK and Bangladesh could serve as an internal governance mechanism to shrink agency conflicts between managers and owners through encouraging management to disclose more and more information about intangibles.

Table 04- Regression Analysis

	Dependent variable		
	Estimate	t	p-value
<i>Intellectual Capital Disclosure (ICD)</i>			
Independent variables			
Board size		2.45	0.026
Board Independence		3.96	0.005
<i>Model summary</i>			
R^2	0.610		
Adjusted R^2	0.564		
F-statistic	13.31		
p-value	< 0.000		

Source: STATA output

7. Summary and conclusions

The purpose of this study is to investigate the influence of board size and independent non-executive directors on voluntary disclosure of intangible in Sri Lankan banks during 2017 - 2019. The findings of the study show that the board size and independent non-executive directors are statistically significant factors in IC disclosure, i.e. the larger number of directors on the board and presence of a greater number of outside directors, the greater those disclosure of intangible. With regard to the variable size of the board of directors, it is an explanatory variable of disclosure of IC in the sense that the larger the size of the board and the higher the disclosures (Li et al., 2008; Hidalgo et al., 2011). Finally, with regard to the independence of the board, which is the number of independent, the findings obtained in this study are in line with those obtained in other studies, including, Muttakin et al. (2015) and García-Meca and Sanchez-Ballesta (2010).

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