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Keywords: corporate governance; human capital; narrative; resource dependence theory; Sri Lanka

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ABSTRACT

This study empirically investigates whether independent directors on the remuneration committee influence narrative human capital disclosure (NAHCD) in firms where independent directors dominate the board composition. NAHCD is measured by frequency of occurrence, using latent content analysis in the annual reports of the top 30 listed firms on the Colombo Stock Exchange from 1998 to 2006. This study examines two attributes of corporate governance, controlling for other corporate governance attributes and firm-level attributes. The findings highlight the importance of considering a firm's independent director involvement in the remuneration committee when determining NAHCD strategy.

AN EMPIRICAL ANALYSIS OF THE RELATIONSHIP BETWEEN BOARD SIZE AND COMMITTEES, AND NARRATIVE HUMAN CAPITAL DISCLOSURE

INTRODUCTION

Purpose

This study empirically examines whether independent directors on the remuneration committee affect narrative human capital disclosure (NAHCD) where independent directors dominate a firm's board composition. The remuneration committee and the audit committee are the two committees most commonly mandated by the corporate governance codes applicable to listed firms across nations. This is particularly relevant to the contemporary global business context, as the ratio of independent to executive directors in listed firms has significantly increased in the past decades (Kor and Sundaramurthy, 2009). However, independent directors' influence in communicating information to shareholders about human capital of firms is largely unexplored. Investigation into independent directors' participation in these two committees affect NAHCD is particularly important to the businesses, as businesses have a responsibility to inform shareholders about future earnings from their anecdotally most-valued asset of human capital. More specifically, this study adds to the knowledge of how corporate governance (specifically, the remuneration committee) influences NAHCD. To examine this relationship, this study investigates the NAHCD of the top 30 listed firms by market capitalization on the Colombo Stock Exchange (CSE) in Sri Lanka over a nine-year period (from 1998 to 2006), using the corporate governance attributes identified by the Code of Best Practice on Corporate Governance in Sri Lanka. Shareholders consider these firms to set the best practice, and they

represent around 60% of the market capitalization of the CSE (CSE, 1999). The CSE introduced the Code of Best Practice on Corporate Governance as a best-practice mandatory code (hereafter labelled “the best-practice code”) effective from 2008; hence, the study period pre-dates the introduction of the best-practice code.

Importance of Sri Lanka

An adult literacy rate of 90.8%, unusually high for a developing country, makes the best practice of Sri Lankan companies an interesting sample to examine NAHCD, as these companies are beneficiaries of this highly literate labour force. Furthermore, during this study period, Sri Lanka took several steps to drive its economy towards a private-sector-led, knowledge-based economy, enhancing the importance of human capital. These steps included amendments to the *Code of Intellectual Property Act 1979* (Wickremaratne, 2000), identifying the human capital base in Sri Lanka as a major thrust area, and providing incentives to develop and protect intellectual property (BOI, 2000). The top 30 companies are some of the biggest employers of the Sri Lankan private sector, due to their size, and they depend greatly on their staff for commercial success. The prevailing civil war between the Sri Lankan government and Tamil separatists during the study period required companies to be more convincing to shareholders about future earnings, in order to sustain their interest, especially from a most-valued human capital base not captured in financial statements. The competitive advantage obtained from a highly literate, low-cost labour force in Sri Lanka enables firms to optimize profits and capital gains at a favourable advantage to both domestic and foreign investors. The findings of this study provide insights into the role of independent directors in providing NAHCD in an increasingly common board composition dominated by independent directors. This study also contributes to furthering the understanding of corporate governance practices related to NAHCD, a topic

seldom explored in listed firms. The study will facilitate comparison with the corporate governance attributes of firms in developed countries and in settings where boards have various proportions of independent director representation.

Independent Directors

Since the top 30 firms are visible targets for investors' demands, the firms respond to these demands by including more independent¹ directors with diverse business and communal skills on the board to enhance the firms' prestige and legitimacy. The reputational effect of these independent directors has a positive association with the firms' value, brings more investment opportunities, and enhances the perceived civic responsibility of firms (Ting, 2009). In this study, more than two-thirds of the directors on the boards are independent; that is, they are external to the firm. They bring a diverse range of skills to the firm, but lack firm-specific, detailed information due to their lack of daily involvement in the business. This study expects that a high proportion of independent directors make the board dependent on their involvement in the remuneration committee to obtain firm-specific, forward-looking, and value-relevant information. This is particularly relevant to NAHCD, which is comprised of non-measurable assets that are difficult for competitors to imitate and to which it is difficult to assign accurate financial values (Barth, Kasznik, and McNichols, 2001). The independent directors sitting on the remuneration committee can obtain firm-specific, detailed human capital information and provide input to the board for NAHCD in annual reports. Although independent directors on the audit committee can provide a limited amount of firm-specific, forward-looking information on human capital, this study expects that independent directors on the remuneration committee acquire much of this knowledge. The larger boards can pool their expertise in making decisions

¹ In the Sri Lankan context independent directors are non-executive directors are interchangeable.

about this disclosure. In the absence of a remuneration committee, this study expects independent directors on the audit committee to become the sole providers of limited NAHCD.

Consistent with the prediction, this study finds that independent directors on remuneration committees facilitate communication to boards regarding human capital. The proportion of independent directors on the board and the number of meetings has no influence on NAHCD. The monitoring role of the board in having more board meetings and resolving conflicting agendas between shareholders and management has little relevance for NAHCD.

The remainder of the paper is organised as follows. Section 2 outlines the Sri Lankan context of corporate governance. Section 3 outlines the relevant literature and the resource dependence perspective. Section 4 develops the hypotheses. Section 5 details the research methods, sample selection, and the governance and disclosure measures employed in the empirical testing of this study. Section 6 presents the results and conclusions, including the impact of corporate governance attributes and control variables.

SRI LANKAN CONTEXT

Colombo Stock Exchange (CSE)

The CSE in Sri Lanka differs greatly from stock exchanges in the developed world in terms of market capitalization, and foreign investment flows. The CSE, which is Sri Lanka's only stock exchange, is of high national significance for economic growth. However, it is relatively a small capital market measured by market capitalization, and relies on foreign investors to maintain its liquidity and to bridge the gap between investments and savings (CSE, 1997). The two indicators of market liquidity—market capitalization as a percentage of GDP (6.59% in 2002, 33% in 2006) and trade value as a percentage of market capitalization—reveal

that the CSE has the lowest liquidity level in the South Asian region (CSE, 1998: 10; De Silva, 2006; World Bank, 2002). Market capitalization of the CSE in 2006 was around USD8 billion for the 237 listed firms (De Silva, 2006; Lanka Newspapers, 2005).

Corporate Governance in Sri Lanka

In 1997, the Institute of Chartered Accountants of Sri Lanka established a voluntary code of corporate governance related to the financial aspects of firms. In 2002, the Institute of Chartered Accountants of Sri Lanka established a code of best practice for audit committees. In 2005, it joined with the Securities and Exchange Commission of Sri Lanka to develop the best-practice code, in an effort to ensure that Sri Lankan standards of corporate governance were comparable to best practice elsewhere in the world (SECSL and ICASL, 2008; Wickramasinghe, 2006). Until 2008, listed firms on the CSE self-regulated their corporate governance practices. The World Bank report on the observance of standards and codes in 2004 stated that the corporate accounting practices of firms in Sri Lanka had improved over the previous decade. This report cited the enactment of the *Sri Lanka Accounting and Auditing Standards Act* (1995) and the establishment of the Accounting and Auditing Standards Monitoring Board in 1995 as two positive actions taken towards furthering improvement of the quality of financial reporting. Among measures to ensure and strengthen regulatory capacity, the report stressed the urgent need for a system of independent oversight of the auditing profession to protect the public interest (ROSC, 2004).

The Sri Lanka Accounting and Auditing Standards Act No. 15 of 1995 provides institutional arrangements for setting accounting and auditing standards and for monitoring their implementation in specific business enterprises. Specific business enterprises include all firms on stock exchanges, public firms, and other firms meeting specific criteria set forth in the

Companies Act of Sri Lanka (Companies Act, 1982). The Institute of Chartered Accountants in Sri Lanka is empowered to issue accounting and auditing standards applicable to specific business enterprises (Sri Lanka Accounting and Auditing Standards Act, 1995). Publicly trading firms in Sri Lanka are required to comply with the Securities and Exchange Commission of Sri Lanka Act No. 36 of 1987 (amended in 2003), which imposes additional rules and requirements, including compliance with accounting and auditing standards, to protect shareholders. The memorandum of understanding with the Accounting and Auditing Standards Monitoring Board requires the Securities and Exchange Commission to refer firms not complying with accounting and auditing standards to the monitoring board to determine further action. The Institute of Chartered Accountants in Sri Lanka publishes the accounting standards in the *Government Gazette*; once published, the standards become best-practice code for practising accountants and applicable firms (ROSC, 2004). Since 2006, Sri Lanka has adopted and implemented international accounting standards in full to establish global comparability of financial reporting.

As the private sector is the major engine of growth in the Sri Lankan economy, the best-practice code is a response to corporate collapses that were taking place in major developed economies, to protect shareholders of the listed firms on the CSE and to sustain Sri Lanka's economic growth. While offering directors the freedom to make business decisions, the intention of the best-practice code is that directors exercise that freedom within a framework that ensures accountability and transparency for the best interests of the stakeholders, particularly shareholders (Wickramasinghe, 2006). The best-practice code recommends at least two board-appointed committees: the audit committee and the remuneration committee.

REVIEW OF LITERATURE AND THEORETICAL FRAMEWORK

Narrative Disclosure

Construction of narrative disclosure is a board-approved activity, enabling directors to provide reasons for their decisions. The use of NAHCD serves not only to help shareholders understand management activity but also to signal future board action and organizational change (Dumay, 2008). Although not referring explicitly to human capital, research on narrative disclosure has produced mixed results, some suggesting that narrative disclosure assists in improving the stock return (Schleicher, Hussainey, and Walker, 2007), whereas other studies conclude that it has little impact on investment decisions (Milne and Chan, 1999). There is, however, agreement that narrative is a powerful way to communicate meaning clearly to stakeholders (Weick, 1995, pp. 128–129), that the constructive potential of its messages is well-known (Yolles, 2007), and that it is a mechanism for understanding human capital (Mouritsen, Bukh, Larsen, and Johansen, 2001; Mouritsen, Larsen, and Bukh, 2001).

Surveying the Fortune 500 firms, a PricewaterhouseCoopers study (2007) finds that even the most technically astute investing community has difficulty understanding the performance disclosure in financial statements in corporate annual reports. Additionally, narrative disclosure contributes to the transparency and understandability of current financial reporting, and to increased dialogue between shareholders and firms—the two key players in capital markets.

Human Capital and NAHCD

Human capital takes the broad view that intangibles have economic value for the firm. Human capital can be conceptualized in various ways; in this study, human capital refers to a combination of factors possessed by a firm's staff individually and collectively. It can comprise

knowledge, skills, and technical ability; personal traits such as intelligence, energy, attitude, reliability, and commitment; ability to learn, including aptitude, imagination, and creativity; and desire to share information, participate in a team, and focus on the goals of the firm (Fitz-enz, 2000).

The relevance of NAHCD for forward-looking decision-making finds major consensus among many academicians and shareholders (Beattie, 1999; Lev, 2001). Shareholders are the ultimate owners of the firm, and directors execute accountability with NAHCD to shareholders about future earnings to improve market efficiency (Grojer, 2001; Walker, 2006). The value of human capital as a collection of intangibles is documented as a compelling case for its disclosure (Lev and Zambon, 2003). Abdel-Khalik (2003) uses executive directors on the board and considers them as employees, demonstrating that shareholders recognize the value of human capital, measured as incentive pay per dollar of fixed salary, as a surrogate for skills embodied in directors. Several factors influence a firm's NAHCD, and there is evidence that corporate governance practice is one such factor. Cerbioni and Parbonetti (2007) in relation to human capital, and Li, Pike, and Haniffa (2008) in relation to intellectual capital, found that board size, proportion of independent directors, role of the chairperson, and audit committee composition influenced a firm's disclosure. A point of difference is that Li et al. (2008) used a sample in which executive directors comprised more than one-half of the board, whereas Cerbioni and Parbonetti (2007) did not provide details of the board composition in their sample.

Previous research has mostly examined the governance aspects of firms' physical and financial capital, rather than their human capital (Keenan and Aggestam, 2001). There is, however, a growing understanding that human capital is important in creating and strengthening the financial capital of firms as future earnings. Thus, as part of good governance practice, firms

are obliged to communicate with shareholders about the competitive advantage of this relatively hidden capital base (Keenan and Aggestam, 2001; Sullivan, 1998). Specifically, this study focuses on the use of narrative, which is the predominant type of human capital disclosure of firms. Li et al. (2008) find that 72% of human capital disclosure is narrative in annual reports for a sample of 100 UK listed companies. Analysis of 253 observations in this study confirms that narrative is the predominant human capital disclosure, compared with visual human capital disclosure and numerical human capital disclosure. Given that little is known about who is behind the NAHCD in firms, this study investigates the governance attributes—specifically, independent directors on the remuneration committee—and their relationship to NAHCD. Evidence provides important insights for businesses to identify the specific roles played by independent directors on the remuneration committee for NAHCD.

NAHCD

Consideration of NAHCD as an outcome of sound corporate governance is compelling, in light of evidence that lack of such disclosure can lead to shareholders underestimating future earnings and firms' increasing their cost of capital (Van der Meer-Kooistra and Zijlstra, 2001). Higher levels of discretionary NAHCD can reduce the risk level perceived by shareholders and reduce information asymmetry between shareholders who have access to companies' private information and those who do not (Zhang, 2001). Cerbioni and Parbonetti (2007) used a sample of biotechnology firms in the European Union to investigate NAHCD as a component in their studies of intellectual-capital disclosure and the influence of corporate governance attributes. They reviewed the management discussion and analysis section of annual reports. They found corporate governance attributes strongly influenced the disclosure quality and quantity. The present study, however, investigates the top listed companies considered the standard-setters of

best practice, and is a longitudinal study over nine years. As noted earlier in this paper, in contrast with the previous two studies—Li et al. (2008) and Cerbioni and Parbonetti (2007)—this study focuses on boards dominated by independent directors.

Resource Dependence Theory

Rather than dichotomizing directors as executive and independent, the resource dependence theory views the entire board as a mechanism that manages to reduce external uncertainties (Pfeffer and Salancik, 1978). Firms reduce uncertainties by effective selection of resources and strategies to increase survival likelihood (Singh, House, and Tucker, 1986). This resource selection includes acquiring independent directors, and strategies include discretionary NAHCD. In addition to reducing uncertainty in firms, directors bring resources such as information, skills, and legitimacy (Hillman, Canella, and Paetzold, 2000). Independent directors, an external resource procured by firms, are business experts and influential figures in the community (Hillman et al., 2000). Such independent directors heavily dominate the top 30 Sri Lankan boards, as a way to respond to potential environmental demands of the businesses. These environmental demands include greater transparency in discretionary disclosure to inform about future earnings to shareholders. The involvement of independent directors in remuneration committees enables them to obtain firm-specific information, independently evaluate the relevance of this information to the firm value, and inform the board. The result is that firms are able to communicate independently evaluated firm-specific information to gain credibility among shareholders. However, the entire board responds to environmental demands, and effectively functioning boards have an optimal number of representatives to respond with value-relevant NAHCD to meet investor expectations. The boards in this study are comprised of a large proportion of independent—rather than executive—directors. This study takes the view that

boards act collectively to determine disclosure decisions and those independent directors on the audit and remuneration committees help the board as providers of NAHCD information. The independent directors in remuneration committees are essential as regards the depth and breadth of NAHCD recommended to the board, and the board is important as the ‘gatekeeper’ of NAHCD to shareholders.

DEVELOPMENT OF HYPOTHESES

Dependent Variable (NAHCD)

This study examines the role of corporate governance attributes in the best-practice code on NAHCD. The NAHCD is constructed for each firm as the total frequency (i.e., number of times) of human capital disclosed in a firm’s annual report. Outlined below are the governance attributes included in this study and the hypotheses developed.

Predictor Variables

Proportion of independent directors on the board (B-BALANCE). The best-practice code requires that at least 2 or one-third of the total directors on the board—whichever is greater—should be independent directors, and that independent directors must declare their independence at least annually, based on criteria set by the best-practice code. Cerbioni and Parbonetti (2007) demonstrate a positive association between independent directors and human capital disclosure with European biotechnology firms as a way of reducing agency conflicts, but admit that a sound corporate governance system characterizes the involvement of independent directors in board-appointed committees. Not focusing on the agency conflicts but consistent with Cerbioni and Parbonetti’s admission, this study using the resource-dependence perspective

takes the view that independent directors on board-appointed committees add value to the board by helping the board to respond to investor demands with firm-specific discretionary disclosure, such as NAHCD. Hence, this study expects a positive association to exist between the proportion of independent directors and NAHCD.

H1: The proportion of independent directors on the board has a positive influence on the NAHCD level.

Number of independent directors on the remuneration committee (N-IDIR-RCOM).

Cerbioni and Parbonetti's (2007) remark that it is the involvement of independent directors on board-appointed committees rather than their mere representation on the board that leads to a sound corporate governance system. Early studies in the UK indicate that there is no association between remuneration committees and management pay, in an era where the highest paid executives are usually members of the remuneration committee (Main and Johnston, 1993). Since the publication of the Cadbury report in 1992, which made recommendations on corporate governance risks and failures, Conyon and Peck (1998) demonstrate that among other things, the remuneration committee has established transparency in setting the remuneration of senior executives. They find that the presence of a remuneration committee with independent directors enables UK firms to align management compensation with firm performance. Their findings lend to the argument that independent directors' informing the board about human capital activities helps the board to inform shareholders about future earnings through NAHCD, and thereby bring forward future earnings into the current period to increase stock return. The best-practice code assumes that the remuneration committee is involved in making decisions about forward-looking

activities rather than monitoring historical activities. The best-practice code also requires the remuneration committee to make recommendations to the board regarding the content to be included in the annual report related to remuneration and human-resource matters. Using the resource-dependence perspective, this study recognizes the involvement of independent directors in the remuneration committee as a resource that acquires firm-specific, forward-looking value-creation possibilities through the firm's human capital, and helps inform the board to determine NAHCD. The greater involvement of independent directors increases the resource level of facilitating the board with the depth and breadth of human capital information for NAHCD, thus this study expects a strong, positive association between the two.

H2: The independent directors on the remuneration committee have a positive influence on the NAHCD level.

Control Variables

Board size (B-SIZE). Despite the assumption that the board of directors is interested in the long-term value of the firm (Laux and Laux, 2009), there is no consensus in the literature as to the recommended optimal size of the board. Jensen (1993) suggested that 8 is the optimal number. Yermack (1996) found that firms' market value decreases with larger boards, but Belkhir (2009) found that larger boards increase firm performance. The Olivencia report in Spain suggested that the optimal number of directors for an effective board should be between 5 and 15 (Garcia Lara, Garcia Osma, and Penalva, 2007). The best-practice code specifies that a board should have a minimum of 2 directors but does not specify the maximum. Rather, it states that the number of directors at the preceding annual general meeting should be the basis for

determining the total number of directors. However, there is a common agreement among studies that excessively large boards can become dysfunctional, and from a resource-dependence perspective, boards of optimal size use the board resources effectively to make better collective decisions. Combining the previous findings on optimal board size, this study sets a maximum limit of 14 directors for an effective board size with a mean value of 8, and expects effective boards to make more NAHCD.

Number of independent directors on the audit committee (N-IDIR-ACOM). The findings from literature concerning the influence of the number of independent directors on the audit committee on the NAHCD level are conflicting. Cerbioni and Parbonetti (2007) examine the majority presence of independent directors in committees (audit, nomination, and remuneration) as a single variable and find a positive association with human capital disclosure in European biotechnology firms. Their study however does not identify the association between each committee separately and the human capital disclosure. The audit committee's responsibilities include making adequate disclosure in financial statements, assessing and managing risk, disclosing risk-management activities in financial statements, and conducting matters related to the hiring of auditors (Laux and Laux, 2009). McMullen (1996) finds that audit committees help to enhance reliable financial reporting, and Ho and Wong (2001) find that audit committees help to increase firms' quality of financial reporting.

The Financial Reporting Council (2010) identifies the primary role of the audit committee as ensuring that the interests of shareholders are protected through financial disclosure and internal control. In relation to voluntary disclosure, Li et al. (2008) find that the audit committee size positively influences the intensity of intellectual capital disclosure, but find no relationship with intellectual capital disclosure as a proportion of the total corporate

disclosure in annual reports. Audit committees are likely to obtain a very little firm-specific knowledge about human capital resource items, since these items are not a routine audit function and human capital-related activities are usually outside the purview of the audit committee.

The best-practice code identifies the roles of the audit committee as reviewing the scope and result of an audit and its effectiveness, and the independence and objectivity of the auditors. The best-practice code notes that the audit committee should meet relevant financial-reporting requirements, and that it can play a vital role in historical and financial disclosure. The code also recommends that at least 50% of the directors on the audit committee should be independent, and that an independent director should be the chairperson. Using a resource-dependence theoretical underpinning, this study recognizes that the involvement of independent directors is a resource helping the board by informing on matters mainly relating to financial reporting rather than non-financial reporting.

Number of board meetings (N-MEET). The number of board meetings is a proxy for the level of monitoring, to indicate the monitoring effectiveness of the board (Vafeas, 1999). The best-practice code requires boards to meet at least four times a year. Since the input of information about NAHCD is expected to be determined by the level of involvement of independent directors on the remuneration committee and the decisions to disclose NAHCD are determined by the proportion of independent directors on the board, this study expects that the number of board meetings will have little influence on NAHCD.

The firm characteristics influence the level of corporate governance; hence this study includes firm size, level of growth, and level of debt, using the findings of previous research.

Size of the firm (SIZE). Chow and Wong-Boren (1987) and Meek, Roberts, and Gray (1995) find that the size of the firm positively associates with discretionary disclosure.

Shareholders expect more information from larger firms; larger firms have lower collection and dissemination cost of voluntary information, and find that voluntary disclosure can help them to lower their cost for additional capital from sources outside the firm (Cerbioni and Parbonetti, 2007). Market capitalization and total assets are proxies of size, but because this study uses them indirectly in other control variables, and to avoid the undue influence of a single attribute, this study instead uses annual sales as a proxy for size, as used in previous governance studies (Eng and Mak, 2003; Li et al., 2008). It is expected that firm size strongly, and positively, associates with NAHCD.

Level of debt (LEVERAGE). An increase in leverage can increase the monitoring level of the board (Garcia Lara et al., 2007); and associates with greater voluntary disclosures of non-financial (Eng and Ma, 2003) and intellectual capital (Cerbioni and Parbonetti, 2007). Firms mitigate the high monitoring costs imposed by greater voluntary disclosure. These monitoring costs do not exist for firms that are debt free, and this study expects that the leverage level positively associates with NAHCD.

Level of growth (GROWTH). The market price over the net book value is a proxy for growth rate of firms (Smith and Watts, 1992). The high-growth firms have a greater information asymmetry and they bridge the information gap by discretionary disclosure to meet investor expectations (Cerbioni and Parbonetti, 2007; Eng and Mak, 2003). Industry sectors distinctly characterize as either “old economy with low growth rate” or “new economy with high growth rate” sectors (Gerpott, Thomas, and Hoffman, 2008). This study expects that firms high growth rate has a positive influence on NAHCD.

RESEARCH METHODS

Annual Reports

Several studies acknowledge the importance of annual reports as vehicles for discharging accountability (Boyne and Law, 1991; Chang and Most, 1985). The annual report is the firm's main communication tool; it has more credibility than other media channels, and is produced necessarily and regularly to meet investor requirements (Marston and Shrivvers, 1985). The annual report presents the board of directors with the challenges of communicating mandatory financial results and making discretionary disclosures related to future earnings possibilities from resources not recognised in the financial statements (Davison, 2002).

Human Capital Disclosure Items

Human capital in this study is comprised of 25 resource items with pre-operational definitions: know-how, vocational qualifications, career development, training programs, union activity, employee thanked, employee featured, executive compensation plans, other employee compensation plans, employee benefits, employee share ownership plans, employee share option ownership plans, expert seniority, employee numbers, professional experience, education levels, expert seniority, age of employees, entrepreneurship of staff, workplace safety, equity issues (gender, race, and religion), equity issues (disability), value-added per expert staff, value added per non-expert staff, and staff involvement with the community (Abeysekera, 2007, pp. 79–88; Abeysekera and Guthrie, 2004). The human capital represents a volatile intangible base that is a major contributor to the development of financial and physical capital (Edvinsson and Malone, 1997).

Content Analysis

Studies of discretionary disclosure (Al-Tuwaijri, Christensen, and Hughes, 2004; Gray et al., 1995) and studies examining the influence of corporate governance attributes on human

capital disclosure (Cerbioni and Parbonetti, 2007; Li et al., 2008) frequently use content analysis in data collection from annual reports. This study develops 20 NAHCD items with pre-defined operational definitions after pilot testing for relevance with a large listed firm outside this sample. It then identifies NAHCD from annual reports of firms in the study sample, looking for meanings (latent content analysis) that meet pre-operational definitions. Two coders who are experienced in content analysis identified NAHCD by frequency of occurrence in the annual report of each firm, recording 1 for each occurrence and 0 for no occurrence. The NAHCD for a firm was the total frequency of 20 resource items in its annual report. The coding of content by two coders allowed measurement of the degree of agreement as a measure of reliability, using Scott's π (greater than 0.9).

The study examines NAHCD in the entire annual reports of the top 30 firms by market capitalization in the CSE from 1998 to 2006 (nine years). The total sample size is 253, after removing a few firms from the dataset due to delisting or inability to obtain their annual reports. Firms removed from the sample comprised two in 1998, two in 1999, one in 2000, one in 2001, three in 2002, three in 2003, two in 2004, and one in 2005.

Measurement of Variables

The study includes NAHCD as the dependent variable to examine the relationship between the level of disclosure and corporate governance attributes. It investigates two corporate governance attributes: B-BALANCE, and N-IDIR-RCOM. The study obtains data from firms' annual reports and the Colombo Stock Exchange database. Table 1 summarizes the operationalizing of both the dependent and predictor variables. The following regression equation tests results by pooling firms across nine years using within-effect estimation in a panel dataset (Hausman, 1978).

Dependent Variable $_{it} = b_0 + b_1 \text{B-BALANCE}_{it} + b_2 \text{N-IDIR-RCOM}_{it} + b_3 \text{B-SIZE}_{it} + b_4 \text{N-IDIR-ACOM}_{it} + b_5 \text{N-MEET}_{it} + b_6 \text{SIZE}_{it} + b_7 \text{LEVERAGE}_{it} + b_8 \text{GROWTH}_{it} + z$

 Insert Table 1 about here

RESULTS AND DISCUSSION

Descriptive Statistics

Table 2 outlines the descriptive statistics. The independent directors dominate the boards and exceed the benchmark of one-third representation set by the best-practice code. On average, two independent directors serve on the audit committees. On average, the boards meet six to seven times a year, which is above the best-practice code's benchmark of four times a year. A board of directors has an average of eight members. A small number of independent directors are represented in remuneration committees (mean =1.2, standard deviation =1.6) compared to independent directors represented on the board (B-SIZE mean =7.9, and B-BALANCE mean =0.67), pointing to it being the involvement of independent directors in remuneration committees that adds value as a resource for NAHCD.

 Insert Table 2 about here

Appendix presents the correlation matrix with NAHCD, governance attributes, and control variables. The correlation values are low, and indicate no multicollinearity. The number

of independent directors on the remuneration committee shows a positive significant correlation with NAHCD. The proportion of independent directors' shows a positive but not significant correlation with NAHCD. All governance related control variables show a positive correlation with NAHCD. The growth-control variable although positive in value, but is not significant for NAHCD. The size variable has a significant and positive correlation, indicating that larger firms make more NAHCD. Firms with smaller boards have a higher proportion of independent directors.

Panel Data Regression Analysis

Table 3 shows the pooled firms across nine years using within-effect estimation (fixed-effect regression) results for NAHCD (within-effect $R^2=0.178$, probability $F=0.001$). The results show that the proportion of independent directors representing the board does not influence the level of NAHCD, a finding that is inconsistent with H1. This might have been because some independent directors are involved in board-appointed committees helping the board in determining NAHCD, while other independent directors are not. The number of independent directors on the remuneration committee positively associates with the level of NAHCD, which is consistent with H2. The involvement of independent directors on the remuneration committee is a value-adding resource to the board, helping the board to disclose NAHCD to inform shareholders about future earnings, and thereby supporting a sound corporate governance system (Cerbioni and Parbonetti, 2007). The board size measured by the total number of directors positively influences the level of NAHCD. The mean B-SIZE of 7.8 in this study is consistent with the optimal board size proposed by Jensen (1993), and is well within the mean board size recommended by the Olivencia Report (Garcia Lara et al., 2007). Although this study expected a

weak positive association, the number of independent directors on the audit committee shows no influence on NAHCD. This confirms that the role of the audit committee is primarily informing about financial reporting to the board in the presence of a remuneration committee (Ho and Wong, 2001; Laux and Laux, 2009; McMuller, 1996). The number of meetings has no influence on the levels of NAHCD. Although the board meets on average eight times a year, more than the number of meetings stipulated by the best-practice code, the higher frequency of board meetings, a monitoring activity, does not help NAHCD. As predicted, the firm size positively associates with NAHCD. On the contrary to a predicted positive association, this study found no significant relationship between leverage and NAHCD. Since the sample firms have positive net asset balances, it may have lead to the no relationship between leverage and NAHCD. Although the growth rate of firms was predicted to have a weak positive association with NAHCD; in this study has no influence on NAHCD. This might have been influenced by the low growth rates of firms in the sample. The high-growth technological sector is insignificant in Sri Lanka, with only one telecommunication firm listed since 2003 (included in the sample).

Insert Table 3 about here

Comparison of findings of this study with previous studies examining NAHCD and governance attributes reveals differences in context. For instance, the findings in this study contrast with those of Li et al. (2008), who find the presence of independent directors on the audit committee to have a positive influence on the level of intellectual-capital disclosure. This study does not confirm the assertion by Cerbioni and Parbonetti (2007) that a higher proportion of independent directors influence the human capital disclosure level. The studies of Cerbioni

and Parbonetti (2007) in Europe and of Li et al. (2008) in the UK support the agency perspective, whereas evidence from this study on NAHCD provides little support for it. Furthermore, the differences in objectives and methodologies between this study and those studies may have contributed to the differences in results. As noted earlier, Cerbioni and Parbonetti (2007) review only the management and discussion sections of the annual reports. Moreover, they count disclosure by number of words (i.e., manifest content analysis) to determine the quality and quantity of disclosure. Li et al. (2008) measured intellectual-capital disclosure as an index they developed. In contrast, this study measures human capital disclosure by the frequency of narrative disclosure of each resource item identified in reference to its meaning (latent content analysis), rather than aggregated disclosure comprising narrative, visual, and numerical information, which was the focus of the aforementioned studies.

Additional Analysis

Reaction to the increase of the proportion of independent directors on the board

As shown in Table 4, as additional evidence, this study examines the influence on NAHCD of the independent directors in remuneration committees, for firms with different proportions of independent directors on the board. The proportion of independent directors greater than 0.2, and in increments of 0.2 up to 0.8, is examined as a separate model. The firm size is a significant variable, and is consistent with the main model. As the proportion of independent directors on the board increases, the N-IDIR-RCOM coefficient increases (5.43 with independent directors on board greater than 0.2, and 6.15 with independent directors on board greater than 0.8), indicating that independent directors on remuneration committees have an increasing influence on NAHCD.

Insert Table 4 about here

Reaction to the absence of independent directors from the remuneration committee and to the absence of independent directors from the audit committee

As further evidence of the influence of independent directors on the remuneration committee, this study investigates the relationship between NAHCD and the corporate governance attributes if independent directors are absent from the remuneration committee. The results (details not shown in the paper) indicate that although the board compositions are similar, the NAHCD level is lower (mean =15.1, standard deviation =16.8) for firms without independent directors on remuneration committees. The predictor variable B-BALANCE (mean =0.6, standard deviation =0.3), and the control variables B-SIZE (mean =7.3, standard deviation =2.5), N-MEET (mean =7.6, standard deviation =3.7), and other control variables are similar to the originally investigated sample. The results indicate that in the absence of independent directors on the remuneration committee, the independent directors on the audit committee become the servers of NAHCD to the board (coefficient =3.38, probability =0.001). The only other significant variable is size (coefficient =2.61, probability =0.001). However, the model predictability is extremely low (within-effect $R^2=0.013$, probability $F=0.001$). As a separate analysis, the main sample disregarded firms without independent directors in the audit committee and the re-run model indicated that N-IDIR-RCOM coefficient increases to 19.1 (probability =0.02) compared to the main model N-IDIR-RCOM coefficient of 5.09.

Reaction to the minimum board size

Garcia Lara et al. (2007), citing the Olivencia Report, note that the effective board size should be between 5 and 15. A model run disregarding firms with board sizes below 5 shows results similar to the original model (details are not shown here). The within-effect R^2 is 0.173 (number of observations =244); the significant variables are B-SIZE (coefficient =1.64, probability =0.09), N-IDIR-RCOM (coefficient =5.09, probability =0.001), and SIZE (coefficient =6.0, probability =0.001). Findings in this study therefore conform to the optimal board size recommended by the Olivencia Report.

Reaction to the maximum board size

As additional evidence for the influence of the board size, this study investigates the relationship between NAHCD and the corporate governance attributes by reducing the board size. The maximum board size in this study is 13. The study conducts separate within-effect regressions by restricting the maximum board size and excluding observations above the maximum board size, first by restricting the maximum board size to 12 (within R^2 =.179); then to 11 (within R^2 =.175); and finally 10 (within R^2 =.12). The results in all these separate regressions are similar to the main study but the model explanatory power shows a decreasing trend with the decrease in maximum board size. Although Yermack's (1996) study observes increasing functionality of the board with decreasing board size for corporate performance, which is a historical perspective of the firm, this study finds decreasing functionality of the board from maximum board size of 13 (mean =7.9, median =8) to 10 (mean =7.3, median =8) for NAHCD, which is a futuristic perspective of the firm.

CONCLUDING REMARKS

The findings indicate that the committee—particularly the remuneration committee—has a positive impact on the level of NAHCD of the top 30 Sri Lankan listed firms. The proportion of independent directors and the number of meetings have no influence on NAHCD, thus weakening theoretical support for an agency perspective for this sample of firms. The monitoring role of the board in having more board meetings and resolving conflicting agendas between shareholders and management had little relevance for NAHCD.

An important lesson from this study is the limited understanding of NAHCD in the context of the remuneration committee and board composition. Heavy reliance on independent directors appears to create a knowledge deficit at the board level about firm-specific, forward-looking human capital information for disclosure—a deficit to address particularly via information obtained by independent directors from the remuneration committee. As this study demonstrates, independent directors on the remuneration committee facilitate the knowledge transfer of firm-specific details of human capital to the board that makes decisions about NAHCD.

The findings of this study have limitations. The study examines only the top 30 listed firms; therefore, these findings might not be applicable to all listed firms or to firms not listed on the main board. The analysis is limited to annual reports, and integration of firms' other media disclosures might provide more comprehensive information about NAHCD. The "independence" of independent directors is assumed as stated in annual reports, since the reports do not necessarily warrant the application of criteria for verification. Corporate governance attributes not mentioned in the best-practice code and different from this study can influence NAHCD.

Nevertheless, the findings of this study provide several researchable topics, as there is little evidence-based documentation of either governance attributes or numerical disclosure of

human capital in a developing-country setting. This study reviews NAHCD as a collection of 20 resource items, but a future study may examine how corporate governance attributes predict each human capital resource item separately. A future study also could examine the governance attributes in this study with firms that place less reliance on independent directors. The communication of human capital can comprise narrative, visual, and numerical types of disclosure. Reasons for the selection of particular disclosure types by firms are wide-ranging but include accountability, transparency, and marketability. Photographs, pictures, and charts constitute the visual type of human capital disclosure. Studies suggest that visual disclosure can manipulate in a manner that gives a better impression than an individual's interpretation of narrative or numerical information alone. Future study may contribute to empirical evidence on the "imagined" world of future earnings, as to whether visual disclosure of human capital obstructs or facilitates transparency of information from the perspective of corporate governance practices. Furthermore, a future study could explore whether implementation of the best-practice code of governance effective from 2008 for listed firms in Sri Lanka has a moderating effect on NAHCD. As found in this study, some governance attributes of the best-practice code of corporate governance have no influence on the level of NAHCD, perhaps because the main thrust of the best-practice code is on financial disclosure rather than on aspects of forward-looking discretionary disclosure.

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APPENDIX

Correlation matrix of narrative intellectual capital disclosure

	NAHCD	1	2	3	4	5	6	7	8	
	1									
1	B-BALANCE	0.01	1							
	Pr	0.83								
2	N-IDIR-RCOM	0.43***	0.11*	1						
	Pr	0.001	0.096							
3	B-SIZE	0.18**	-0.12*	0.32***	1					
	Pr	0.001	0.07	0.001						
4	N-IDIR-ACOM	0.40***	0.14**	0.60***	0.30***	1				
	Pr	0.001	0.027	0.001	0.001					
5	N-MEET	0.21**	0.17***	0.34***	0.35***	0.28***	1			
	Pr	0.001	0.007	0.001	0.001	0.001				
6	SIZE in ln	0.44**	-0.07	0.34***	0.16***	0.28***	0.24***	1		
	Pr	0.001	0.255	0.001	0.009	0.001	0.001			
7	LEVERAGE	-0.12*	0.00	-0.11*	-0.20***	-0.06	-0.14**	-0.34***	1	
	Pr	0.054	0.962	0.070	0.001	0.370	0.022	0.001		
8	GROWTH	0.03	-0.04	-0.04	-0.11*	-0.02	-0.19***	-0.05	0.26***	1
	Pr	0.687	0.500	0.553	0.087	0.796	0.002	0.432	0.001	

Significance: *** at 1%; ** at 5%; and, * at 10%.

TABLE 1
Variable Definitions and Measurement

Variable	Proxy	Measurement	Data source
<i>Dependent</i>			
NAHCD	Total narrative human capital disclosed	Total frequency count of narrative disclosure of human capital (20 resource items)	Annual reports
<i>Independent</i>			
B-BALANCE	Independent directors on the board	Proportion of independent directors on the board	Annual reports
N-IDIR-RCOM	Independent directors on committees other than the audit committee	Number of independent directors on the remuneration committee	Annual reports
<i>Control</i>			
B-SIZE	Board size	Total number of directors on the board	Annual reports
N-IDIR-ACOM	Independent directors on the audit committee	Number of independent directors on the audit committee	Annual reports
N-MEET	Board meetings	Number of board meetings held in a financial year	Annual reports
SIZE	Size of the firm	Natural logarithms of total annual sales	Colombo Stock Exchange database
LEVERAGE	Level of debt	Total assets over total liabilities	Annual report
GROWTH	Level of growth	Market value of ordinary shares divided by book value of ordinary shareholders' equity	Annual reports

TABLE 2
Descriptive Statistics of Variables for the Overall Sample

Variable	Mean	S.D.	Median
NAHCD	25.2	28.5	15
B-BALANCE	0.67	0.3	0.74
N-IDIR-RCOM	1.2	1.6	0
B-SIZE	7.9	2.4	8
N-IDIR-ACOM	2.1	1.7	3
N-MEET	7.6	4.0	6
SIZE (Rs. Mn) (in ln)	15.2	1.4	15.3
LEVERAGE	5.1	20.2	1.9
GROWTH	1.2	0.7	1

Please refer to Table 1 for variable definitions.

TABLE 3
Panel data within-effect regression results for NAHCD

	NAHCD	NAHCD	NAHCD
	Coefficient	Pr	Standard error
B-BALANCE	-1.97	0.78	7.03
N-IDIR-RCOM	5.09***	0.00	1.31
B-SIZE	1.49*	0.08	0.86
N-IDIR-ACOM	1.82	0.14	1.24
N-MEET	-0.33	0.47	0.46
SIZE (Rs. Mn) in ln	5.95***	0.00	1.77
LEVERAGE	0.03	0.74	0.08
GROWTH	3.05	0.18	2.26
CONSTANT	-86.45	0.00	28.84
Within-effect R ²	0.178		
Probability F	0.001		

Number of observations = 253; Number of groups = 53; Average observation per group = 4.8;

Significance level: *** at 1%, ** at 5% and at *10%.

Please refer to Table 1 for variable definitions.

Fixed-effect regression model:

Dependent Variable $_{it} = b_0 + b_1 \text{B-BALANCE}_{it} + b_2 \text{N-IDIR-RCOM}_{it} + b_3 \text{B-SIZE}_{it} + b_4 \text{N-IDIR-}$

$\text{ACOM}_{it} + b_5 \text{N-MEET}_{it} + b_6 \text{SIZE}_{it} + b_7 \text{LEVERAGE}_{it} + b_8 \text{GROWTH}_{it} + z$

TABLE 4
Panel data within-effect regression results for firms with different proportions of independent directors on board

Proportion of independent directors on the board	>0.2		>0.4		>0.6		>0.8	
	Coef.	Pr	Coef.	Pr	Coef.	Pr	Coef.	Pr
B-BALANCE	-7.54	0.37	-24.39*	0.02	-23.86	0.28	-0.13	1.00
N-IDIR-RCOM	5.44***	0.00	5.64***	0.00	6.06***	0.00	6.15***	0.00
B-SIZE	1.27	0.16	1.12	0.25	0.96	0.41	0.65	0.63
N-IDIR-ACOM	1.56	0.23	1.92	0.18	1.78	0.29	1.95	0.37
N-MEET	-0.32	0.51	-0.38	0.49	-0.28	0.72	-0.22	0.82
SIZE (Rs. Mn) in ln	5.72***	0.00	5.81***	0.00	5.80**	0.01	5.54**	0.02
LEVERAGE	0.05	0.60	0.04	0.73	0.02	0.85	0.00	0.98
GROWTH	2.59	0.28	4.86*	0.08	6.30*	0.06	7.09*	0.05
CONSTANT	-76.00	0.02	-65.72	0.05	-66.04	0.12	-82.57	0.13
Within-effect R ²	0.187		0.245		0.227		0.159	
Probability F	0.001		0.001		0.001		0.001	

Significance level: *** at 1%, ** at 5% and at *10%.

Please refer to Table 1 for variable definitions.

Fixed effect regression model:

Dependent Variable $_{it} = b_0 + b_1 \text{B-BALANCE}_{it} + b_2 \text{N-IDIR-RCOM}_{it} + b_3 \text{B-SIZE}_{it} + b_4 \text{N-IDIR-ACOM}_{it} + b_5 \text{N-MEET}_{it} + b_6 \text{SIZE}_{it} + b_7 \text{LEVERAGE}_{it} + b_8 \text{GROWTH}_{it} + z$