Corporate Governance Structure and Intellectual Capital Disclosure: Evidence from Ghana

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Abstract

the main aim of this paper is to investigate the extent of the intellectual capital disclosure and the relationship between intellectual capital disclosure and corporate governance variables in Ghanaian listed firms. We tested the following independent variables comprising the various forms of corporate governance structure: board composition, dual role, size of the audit committee and frequency of audit committee meetings. A sample of 50 firms listed on the Ghana Stock Exchange was selected. The descriptive statistics, content analysis, and a linear regression model were performed to analyze the data. Out of the four (4) variables tested, only the frequency of audit committee meetings has a significant positive relationship in influencing the level of intellectual capital disclosure in Ghana. The result also found 74.67 percent of the selected companies disclosed intellectual capital in their annual reports. However, the extent of the intellectual capital disclosure among Ghanaian firms is still relatively low (about 4.45 percent). This result also revealed that most of the Ghanaian firms are aware of the intellectual capital disclosure, but however, they are not aware on how to measure, report and disclose this information in their annual report.

Keywords: Corporate Governance, Intellectual Capital, Structural Capital, Human Capital

Introduction

Intellectual Capital (IC) disclosure has been receiving a lot of attention among firms around the world lately. This is due to the fact that, there is a new economy driven of the knowledge-based economy where value creation becomes one of the crucial and critical issues in the world which also tends to be based on intangible assets rather than tangible assets. The empowerment of human mentality and intellectual capacity as the development of human capital in Ghana is one of the targeted areas under the vision 2020 plan. To be competitive in the global market, a progressive developing African country like Ghana has to effectively transfer from just being an input-driven to a knowledge-driven economy that focuses more on utilizing human knowledge and skills rather than on the production of labour intensive goods (Goh, 2005).

Due to global trend and demand for more useful and comprehensive non-financial information about operating activities of firms (Anderson and Epstein, 1996), Ghanaian firms should voluntarily disclose intellectual capital in their annual reports. Therefore, this study is conducted to investigate the extent of the intellectual capital disclosure and the relationship between intellectual capital disclosure and corporate governance variables in Ghanaian listed firms especially after some modifications to Ghana Code on Corporate Governance in 2003 with more emphasis on strengthening the board of directors’ and audit committees functions, eligibility criteria for appointment, the boards composition, the frequency of meetings and the need for continuous training. The code requires public listed firms to report their compliance with the standards of corporate governance so that shareholders can assess the information. It is therefore expected that after the modification of Ghana’s Code on Corporate Governance, it might encourage the Ghanaian firms to disclose more voluntary intellectual capital information in their annual reports.

Literature Review

http://www.ijmsbr.com
Intellectual Capital Disclosure

Intellectual Capital is defined as intangible assets which include technology, customer information, brand name, reputation and corporate culture that are invaluable to a firm’s competitive power (Low and Kalafut, 2002). Low and Kalafut concluded that intellectual capital consists of three components. The components are tacit, knowledge and innovativeness of the employees, the second been infrastructure of human capital such as good working system, innovation and improvement processes of structural capital with the last components been external relationships of the firm such as customers capital. Nick Bontis, the director of intellectual capital research, associate editor, Journal of Intellectual Capital posits that; “Intellectual Capital is the currency of the new millennium. Managing it wisely is the key to success in the knowledge area of business”. There are many reasons for the firms to disclose intellectual capital information in their annual reports. These reasons are as follows:(a) to help organizations formulate strategies, (b) to assess strategy executions, (c) to assist in diversification and expansion decisions, (d) to use as basis for compensations and (e) to communicate measures to external stakeholders (Marr et al., 2003).

There are three approaches to measuring intellectual capital currently as posited by Brennan (2001). The first approach is to employ existing value-based measures. It is suggested that the value of intellectual assets is the difference between the market value of the firm and its book value. The second approach is known as “Skandia Navigator” where it refers to the methods which identify and quantify the critical success factors in five dimensions of the firm’s business (Brennan, 2001). This model proposed by Edvinson and Malone (1997) expresses five (5) dimensions such as; (1) financial; (2) client; (3) human; (4) processes; (5) renewal and development of as an element of the intellectual capital system. The third approach refers to the intellectual capital index. Through this approach, some key measures of success of an individual firm must be first identified and weighted (according to importance) so as to provide a single summary index. Some researchers argue a single aggregate measure is unhelpful (Booth, 1998).

Various studies have been done to date by many researchers to examine the determinants of intellectual capital disclosure around the world such as (Tailiyang, 2011; Bruggen, 2009; White et al., 2007; Ousama Anam, 2007, Garcia-Medca et al., 2005) and many more. It can be concluded that a few variables such as firm size, age, profitability, and growth can be considered as control variables and significantly influence the level of intellectual capital disclosure for the firms.

Corporate Governance and Disclosure Environment in Ghana

The Companies Act of 1963 (Act 179) requires all public and private listed companies to prepare and submit their annual report to Securities and Exchange Commission of Ghana (SEC) according to the reporting and disclosure standards prescribed by the Ghana National Accounting Standard (GNAS). Following the enactments of the 2002 corporate governance code by the SEC, many codes of best practices have emanated while there have been calls for a single code by various regulators and stakeholders. While full compliance with the codes and its enforcement by the SEC is being canvassed for, corruption which has persisted and continued to grow has been single out as the major bane within the Ghanaian system. The corporate governance developments and disclosures in any country are often shaped by a wide array of internal as well as external factors (Okike, 2007). Accordingly, the internal factors include the state of the economy and the capital market, corporate and business culture, the legal system, government policies, professional/regulatory bodies, amongst others while the external factors (such as the old colonial ties, membership of international accounting standard committee, direct foreign investment activities of multinationals such as foreign banks and companies) contribute considerably, if not totally, to the complex reality of corporate governance development in any developing country. The impact of these factors and the differences in the system operating within each country are well documented in the accounting and corporate governance literature (Rose and Meyer, 2003; Okike, 2007 amongst others).
Ghana SEC (2002) identified some common elements that underlie good corporate governance upon which further evolution and developments in governance structures are built upon today. They are: (1) the rights of shareholders; (2) the equitable treatment of shareholders; (3) the roles of stakeholders; (4) disclosure and transparency; (5) the responsibilities of the board. These pillars are explicitly uncovered in the 2002 code of best practices released by the Ghana Securities and Exchange Commission.

The government of Ghana has also from time to time implemented a number of measures to enhance their standards of reporting and disclosure. The Ghana SEC placed a significant milestone in corporate governance reform in Ghana. It provided guidelines for principles and best governance practices that emphasized the importance of transparency, accountability, internal control, and board composition. Corporate governance served as a mechanism that assists firms in achieving their objectives while disclosure is an essential tool for reporting their corporate governance performance to investors. Keenan and Aggestam (2001), Li et al., (2008), Clement and Labat (2009) argued that effective corporate governance mechanisms have impacts on efficient intellectual capital management including the disclosure of information to shareholders. The investors are to be informed about the core strengths of the firm when it discloses its intellectual capital owned (Kavida and Sivaloumar, 2008), thereby promoting transparency.

Agency Theory
The underlying theory used in this study is Agency theory. The theory provides the connection between voluntary disclosure behaviors to corporate governance where it was used as a control mechanism to reduce the agency problem arising from the separation between ownership and management (Welker, 1995). More so, high intellectual capital disclosure could provide more intensive monitoring package for a firm to reduce opportunistic behavior and information asymmetry (Li et al., 2008). This is consistent with the study, by adopting corporate governance variables such as audit committee, independent board directors, separation of duty between roles of board chairman and chief executive officer, may enhance the internal control in each firm and directly reduce the agency problems. As a consequence, it is expected that intellectual capital disclosure in annual reports could be improved.

Hypothesis Development, Data, and Methodology

Hypothesis Development

Board Composition

The function of the board of directors can be seen as an internal control mechanism in participating for decision making on behalf of the shareholder's interest, also to ensure management decision is consistent with the owner’s interest. Haniffa and Cooke (2005) posits that higher composition of non-executive directors on the board might influence the disclosure level as they can provide wider expertise, prestige, and contacts for the firm’s benefits. However, Cotter and Silvester (2003) argue that independent non-executive directors are in better position to monitor executive management. In view of this, we expect firm with more independent non-executive directors will disclose more information regarding the intellectual capital of the firm.

There are lots of studies which considered independent board composition as a possible determinant in influencing disclosure level. Some studies found a significant relationship between proportions of independent non-executive directors with voluntary disclosure (Examples are; Li et al., 2008; Patelli and Prencipe, 2007). The above led to the development of hypothesis one as stated below:

H1: There is a positive relationship between independent board composition and intellectual capital disclosure.

Duality Role

Duality Role is one of the criteria to examine the independence of the board of directors where leadership structure is held by the same persons to undertake both the roles of chief executive and chairman of the firm. According to Forker (1992), a dominant personality in leading a firm may be detrimental to the interests of
shareholders, and this phenomenon has been found to be associated with poor disclosure. Extending the argument for duality role for independent non-executives, we hypothesize that:

**H2: There is a negative relationship between duality role and intellectual capital**

*Size of Audit Committee*

The appointment of audit committee from the non-executive directors who are financially literate is to ensure that the interests of shareholders are properly protected. This is due to the fact that, the role of the audit committee is to review the preparation of the firm’s financial statement as well as the disclosure of value-relevant information such as intellectual capital. Ho and Wong (2001) posit that; the presence of effective audit committee serves as the best mechanism to increase intellectual capital disclosure, improve internal control and enhance the quality of information. This is in contrast with the findings of a study by Mangena and Pike (2005) and Akhtarudin et al. (2009) that indicated the size of the audit committee does not impact on the extent of disclosure in annual reports. We address the divergent and competing views by testing the following hypothesis:

**H3: There is a positive relationship between the size of the audit committee and intellectual capital disclosure**

*The frequency of Audit Committee Meeting*

The audit committee and external audit auditor(s) should meet regularly without the executive board members present so as to encourage a greater exchange of free and honest views and opinions between both parties. Olson (1999) noted that inactive audit committees are unlikely to monitor management effectively and adequate meeting time should be devoted to the consideration of major issues. This is supported by Li et al. (2008) that the level of intellectual capital disclosure and frequency of audit committee meetings are positively and significantly related to each other. Both studies posited that; audit committee activity is an important factor in monitoring management actions, specifically in the reduction of information asymmetry through intellectual capital disclosure. Due to the increasing importance of this matter, we expect audit committees to have more meetings to influence the disclosure of intellectual capital in the firm. Therefore, we hypothesized that:

**H4: There is a positive relationship between the frequency of audit committee meetings and intellectual capital disclosure.**

**Data and Methodology**

**Variables Measurement**

*Measurement for Intellectual Capital Disclosure (Dependent Variable)*

In measuring intellectual capital disclosure, we used intellectual capital disclosure index by replicating a modified methodology by Bontis (2003) and Vergauwen and Van Alem (2005) with 36 intellectual capital related terms collected by researchers in the World Congress on Intellectual Capital (WCIC). The 36 terms we categorized into three categories by the congress namely: (a) structural capital; (b) human capital and (c) relational capital. Due to the presence of some general terms related to the field of intellectual capital, Bruggen (2009) in his study, modified the model by placing additional terms on the fourth category called “General Terms.” None of the relational capital terms appear in the sample firm’s report. Hence, this study uses three additional terms for testing. The additional terms are investor relation; customer relationships; and Supplier relation. It is expected that; these three terms will give significant result in this study since most of the samples are operating in financial and technological sectors. It is assumed that these three items in the relational capital should be added to this measurement.

*Measurement of Independent Variables*

The following factors were studied in examining the relationship to intellectual capital disclosure:
(a) The composition of Board Independence (BCOMP): Proportion of independence director over the total board of directors.

(b) Duality Role (DUALR): Give 1 if the roles of chairman and CEO are held by the same person; 0 if otherwise

(c) Size of Audit Committee (SAC): Total number of directors on the audit committee

(d) Meeting of Audit Committee (MAC): Frequency of audit committee meeting held within a financial year.

**Data Collection and Analysis**

A sample of 50 firms listed on the Ghana Stock Exchange was randomly selected consisting of firms in sectors such as Information Technology, Consumer Product, Trading/Services, Industrial Product and Finance. The study used secondary data gathered from sources of annual reports of the firms. Annual reports from 2010 to 2016 were used to extract the relevant information. 2010 to 2016 annual reports were chosen they had incorporated several changes stipulated in the modified Companies Code of 1963 (Act 179) as well as Securities and Exchange Code and Corporate Governance Code of Ghana. It is expected that, after these modifications, Ghanaian firms are more interested in disclosing voluntary information in their annual reports.

The earlier part of the analysis is describing the demographic and financial characteristics of the sampled firms. Descriptive analysis is carried out using Statistical Package for Social Science (SPSS), and content analysis was also performed. This method allows the content of annual reports of the relevant companies to be investigated with regard to the use of certain words in the annual reports. In carrying out this analysis, computer scanning system has been used in scanning annual reports of the firms and detecting the related IC terms which appear in the annual reports. To enhance the reliability of the data collected, the terms which appear in the annual reports have been cross-checked through manually reading the related pages which consist of the appeared terms.

Terms that have been detected would be counted for the number of times it appeared in the annual reports for the years. In counting the number of terms that appeared in the annual reports, the study ignored the terms that appear in the director’s profile, the name of the seminar or activities, and the repetitions of an award’s name. this is due to the fact that, the terms that appeared in the sections mentioned above did not make sense in measuring a total of the intellectual capital disclosure among Ghanaian firms. An example is the director of the firm holding degree in gender and child policy. The term of gender and child policy does not symbolize as a structural capital; hence it is practical in disregard this term in calculating the frequencies of IC disclosure among Ghanaian firms. The result of the analysis of the content of annual reports is shown in table 3 and table 4 respectively. Furthermore, the Ordinary Least Square (OLS) regression was performed for testing the hypothesis using SPSS version 16. The following regression equation was estimated to identify the relationship between corporate governance variables and IC disclosure. The results of OLS regression equation were presented in table 5.

\[
\text{IC Disclosure} = \beta_0 = \beta_1(BCOMP) - \beta_2(DUALR) + \beta_3(SAC) + \beta_4(MAC) + \varepsilon_i
\]

Where;

\[
\text{IC Disclosure}_i = \text{Intellectual Capital Disclosure of Firm } i
\]

\[
BCOMP_i = \text{Composition of Independent Board of Directors in Firm } i
\]

\[
DUALR_i = \text{Implementation of Dual Role in Firm } i
\]

\[
SAC_i = \text{Size of Audit Committee in Firm } i
\]

\[
MAC_i = \text{Frequency of Audit Committee meetings in Firm } i
\]

\[
\beta_0 = \text{Constant}
\]
\[ \beta_1 - \beta_4 = \text{Coefficient of the explanatory variables} \]
\[ \varepsilon_i = \text{Error or disturbance terms of Firm } i \]

**Empirical Results**

**Descriptive Results**

The mean, standard deviation, minimum and maximum value for each of the variables involved in this study except for duality role is presented in Table 1. The mean for intellectual capital disclosure was 4.45 percent as indicated in Table 1. The results in Table 2 shows that it is a bit different for the mean duality role as it indicates 3.4 percent if the roles of the chairman are held by the same person and 4.6 percent if otherwise.

Table 1: Descriptive Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Composition</td>
<td>0.4638</td>
<td>0.1317</td>
<td>0.2500</td>
<td>0.8600</td>
</tr>
<tr>
<td>Size of Audit Committee</td>
<td>3.3400</td>
<td>0.7310</td>
<td>2.0000</td>
<td>7.0000</td>
</tr>
<tr>
<td>Frequency of Audit Meetings</td>
<td>5.0900</td>
<td>1.5410</td>
<td>2.0000</td>
<td>16.000</td>
</tr>
<tr>
<td>Total IC Disclosure</td>
<td>0.0445</td>
<td>0.0301</td>
<td>0.0000</td>
<td>0.1282</td>
</tr>
</tbody>
</table>

Table 2: Independent T-Test

<table>
<thead>
<tr>
<th>DUALR</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total IC</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>0</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

**Content Analysis Results**

Table 3 shows that; structural capital is the most frequently disclosed category followed by the relational capital. In contrast, the result found by Bruggen (2009) stated that it was very difficult to find relational capital items disclosed in the annual reports of Australian firms. The differences above are consistent with the expectation that by adding some extra terms under relational capital would give significant influence to this study compared to the study done by Bruggen (2009). It clearly shows that Ghanian firms absolutely engaged in investor, customer and supplier relation. Aside from that, by scrutinizing all industries selected, the results found firms in finance and information technology disclosed more intellectual capital items than other firms. The study supports the results found by Bruggen (2009), where Australian firms involve in high-tech industries and information system was among the firms that commonly report and disclose on intellectual capital.

Of the 39 IC related terms, only 22 terms appeared in the annual reports of Ghanaian listed firms as depicted in Table 4. Of those terms, human capital was frequently disclosed with a score of 136 times followed by investor relation at 108 and information systems at 99. In addition, out of the 50 samples, the results also found out that 74.67 percent of the firms disclosed IC in their annual reports with only 25.33 percent of the firms not disclosing IC. This percentage reflects a very high disclosure of IC in Ghana.

Besides that, in terms of disclosure location, IC information is reported in several sections in the annual reports. This information commonly appeared in the financial statements and notes to financial statements followed by director’s report, statement of corporate governance and another operational report. Intellectual capital work is mostly managed by senior management (Bontis, 2001), so the location of IC disclosures demonstrates firm’s concerns in reporting intellectual capital.
Table 3: Intellectual Capital Disclosure by Firms

<table>
<thead>
<tr>
<th>Firms/Items</th>
<th>Relational Capital</th>
<th>Human Capital</th>
<th>Structural Capital</th>
<th>General Terms</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Technology</td>
<td>12</td>
<td>17</td>
<td>52</td>
<td>1</td>
<td>82</td>
</tr>
<tr>
<td>Consumer Product</td>
<td>13</td>
<td>19</td>
<td>16</td>
<td>1</td>
<td>49</td>
</tr>
<tr>
<td>Trading/Services</td>
<td>14</td>
<td>27</td>
<td>23</td>
<td>0</td>
<td>64</td>
</tr>
<tr>
<td>Finance</td>
<td>94</td>
<td>77</td>
<td>54</td>
<td>1</td>
<td>226</td>
</tr>
<tr>
<td>Industrial Product</td>
<td>20</td>
<td>5</td>
<td>18</td>
<td>0</td>
<td>43</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153</strong></td>
<td><strong>145</strong></td>
<td><strong>163</strong></td>
<td><strong>3</strong></td>
<td><strong>464</strong></td>
</tr>
</tbody>
</table>

Table 4: Intellectual Capital Disclosure by Terms

<table>
<thead>
<tr>
<th>Relational Capital</th>
<th>Times</th>
<th>Human Capital</th>
<th>Times</th>
<th>Structural Capital</th>
<th>Times</th>
<th>General Terms</th>
<th>Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational Capital</td>
<td>0</td>
<td>Employee Expertise</td>
<td>0</td>
<td>Structural Capital</td>
<td>0</td>
<td>Economic Value added</td>
<td>0</td>
</tr>
<tr>
<td>Supplier Knowledge</td>
<td>2</td>
<td>Employee Know-how</td>
<td>0</td>
<td>Intellectual Property</td>
<td>54</td>
<td>Intellectual Capital</td>
<td>2</td>
</tr>
<tr>
<td>Customer Knowledge</td>
<td>0</td>
<td>Employee Knowledge</td>
<td>3</td>
<td>Cultural Diversity</td>
<td>1</td>
<td>Intellectual Resources</td>
<td>0</td>
</tr>
<tr>
<td>Customer Capital</td>
<td>0</td>
<td>Employee Productivity</td>
<td>1</td>
<td>Organizational Structure</td>
<td>0</td>
<td>Intellectual Asset</td>
<td>0</td>
</tr>
<tr>
<td>Company Reputation</td>
<td>2</td>
<td>Employee Skill</td>
<td>1</td>
<td>Corporate Learning</td>
<td>1</td>
<td>Knowledge Asset</td>
<td>0</td>
</tr>
<tr>
<td>Investor Relation</td>
<td>108</td>
<td>Employee Value</td>
<td>1</td>
<td>Organizational Learning</td>
<td>1</td>
<td>Knowledge Stock</td>
<td>0</td>
</tr>
<tr>
<td>Customer Relation</td>
<td>40</td>
<td>Human Capital</td>
<td>136</td>
<td>Corporate University</td>
<td>0</td>
<td>Intellectual Material</td>
<td>0</td>
</tr>
<tr>
<td>Supplier Relation</td>
<td>1</td>
<td>Human Asset</td>
<td>1</td>
<td>Knowledge Sharing</td>
<td>2</td>
<td>Business Knowledge</td>
<td>1</td>
</tr>
<tr>
<td>Expert Team</td>
<td>0</td>
<td>Knowledge Management</td>
<td>2</td>
<td>Management Quality</td>
<td>2</td>
<td>Competitive Intelligence</td>
<td>0</td>
</tr>
<tr>
<td>Information System</td>
<td>9</td>
<td>99</td>
<td>Expert Network</td>
<td>0</td>
<td>163</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153</strong></td>
<td><strong>145</strong></td>
<td><strong>163</strong></td>
<td><strong>3</strong></td>
<td><strong>464</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regression Results

Table 5 depicted the regression result if the estimated equation was run simultaneously between all independent variables and dependent variables. Using two-tailed test, the only statistically significant coefficient is the frequency of audit meetings since significance level is 0, which means p<0.01. It shows when a firm holds recurrent audit meetings, it will enhance and encourage directors to voluntarily disclose information in their annual reports. However, the R-squared show 0.269 which means 26.9% of the corporate governance variables used in the study determined the level of intellectual capital disclosure among Ghanaian firms.

Table 5: Regression Results

<table>
<thead>
<tr>
<th>Unstandardized Coefficient</th>
<th>Standardized Coefficient</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beta</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>BCOMP</td>
<td>.008</td>
<td>.019</td>
<td>.042</td>
</tr>
<tr>
<td>DUALR</td>
<td>-.012</td>
<td>.005</td>
<td>-.117</td>
</tr>
<tr>
<td>SAC</td>
<td>.000</td>
<td>.003</td>
<td>.004</td>
</tr>
<tr>
<td>MAC</td>
<td>.007</td>
<td>.002</td>
<td>.382</td>
</tr>
</tbody>
</table>

Note: *Significant at 10%; **significant at 5%; ***Significant at 1%
Conclusion

The main aim of this paper is to investigate the extent of the intellectual capital disclosure and the relationship between intellectual capital disclosure and corporate governance variables in Ghana. It can be concluded that, even though the result showed the high percentage of about 74.67 percent of the firms selected disclosed intellectual capital in their annual reports, the extent to which the intellectual capital is disclosed among these firms is still relatively low. It is indicated by the average intellectual capital disclosure of 4.45 percent. The low level of the extension of IC disclosure is due to the measurement used in this study where the extent of IC disclosure is measured by dividing the number of items disclosed by the companies with the total items used in this study for each category of IC. In calculating the number of items disclosed, the repetition of the same items in the annual report is disregarded in the study.

The result also revealed that most Ghanaian firms are aware of intellectual capital disclosure, but however, they are not aware of how to measure, report and disclose this information in their annual reports. This is consistent with the conclusion made by Gutherie and Petty (2000). They posited that; the Australian firms report less on IC disclosure in their annual reports due to the poor understanding, inadequately identified, inefficiently managed and reported IC in a consistent framework.

Out of the four (4), corporate governance variables tested, only frequency of the audit committee meetings can be concluded to be a factor which positively and significantly influence the level of intellectual capital disclosure among Ghanaian listed firms. This is supported by Li et al. (2008) that the level of intellectual capital disclosure and frequency of audit committee meetings are positively related to each other. However, the result did not support the other three (3) hypothesis since the study found that there is no significant relationship between board composition, dual role, and size of the audit committee with intellectual capital disclosure. The same result was also found by previous studies, as Ho and Wong (2001); Brammer and Pavelin (2006) found no relationship between board composition and intellectual capital disclosure while Li et al. (2008) concluded that dual role was not found to influence intellectual capital disclosure. Akhtaruddin et al. (2009) found out that, audit committee size on the board is not related to voluntary disclosures.

Adoption of internal control measures such as audit committees and non-executive directors, and separation of the roles of chairman and chief executive, may enhance monitoring quality in critical decisions about intellectual capital investment and performance (Keenam and Aggestam, 2001). However, our study found out that no significant relationship between such internal control measures or mechanisms with voluntary intellectual disclosure. One of the possible reasons might be due to the fact that non-executive directors may not necessarily be independent. As defined by Cotter and Silvester (2003), independent non-executive directors are typically individuals with relevant expertise and professional reputations to defend, with no management role or links with the firm.

It must be noted that this study has limitations. First, the small sample size of 50 firms listed on the Ghana Stock Exchange might not comprehensively or accurately illustrate the real occurrence situation in Ghana. Additionally, the study focused on Ghana and thus, the result cannot be generalized to other countries. Another limitation is the content analysis. Analyzing the annual reports based on the specified list of intellectual capital (IC) means it may not provide the whole picture of IC disclosure practices in Ghana. According to Striukova et al. (2008), there are various types of corporate reports used by companies to communicate their intellectual capital information, and thus, annual reports alone are not good proxies for measuring the extent of IC disclosure. As this study used modified methodology by Bontis (2003) and Vergauwen and Van Alem (2005), a major limitation of using this methodology is that 39 items were used. Finally, the last limitation in this study is that an annual report is analyzed using computer scanning in deriving from the number of items that appear in the annual report. Hence, the computer could skip a similar item with different wordings. The study could be improved in the future in several ways. As this study has been conducted using a small sample size, to make the conclusion of future research more reliable, bigger sample size could be undertaken. To further improved the
research, the sample could be widened and focus on all listed and non-listed firms in Ghana. If all the above suggestions are taken into consideration, perhaps more conclusive result could be obtained in the future.

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