

**CORPORATE GOVERNANCE STRUCTURE AND INTELLECTUAL CAPITAL  
DISCLOSURE OF LISTED HEALTHCARE FIRMS IN NIGERIA**

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**Abstract**

The objective of this study is to investigate the effect of corporate governance structure on intellectual capital disclosure of seven healthcare listed firms for five years (2013- 2017). Based on content analysis of intellectual capital disclosure items on the annual reports of the selected firms, the empirical results of multiple regressions reveal that size of the audit committee and frequency of board meeting are insignificantly related to intellectual capital disclosure. While board size and board composition are significantly positively associated with intellectual capital disclosure. This study supports and contributes to existing literatures that board size and board composition is a factor that influences intellectual capital disclosure.

*Keywords: corporate governance; corporate governance structure; intellectual capital disclosure*

**1. Introduction**

The purpose of this paper is to ascertain the effect of corporate governance structure on intellectual capital disclosure of listed healthcare firms in Nigeria. Intellectual capital (IC) is the economic value created by employees of an organisation and it is classified into human capital, relational capital and structural capital. Researches on disclosure of intellectual capital have increase over the years. Yet countries do not disclose sufficient information on intellectual capital, especially in the developing and underdeveloped economies. Many scholars in developed countries have discussed on this issue (Abeysekera, 2006; Bruggen, Vergauwen, & Dao, 2009; Li, Pike, & Haniffa, 2008; An, Eggleton, Umesh, Harun & Luo, 2017). Corporate Social Reporting and Intellectual Capital Disclosure (ICD) are believed to be highest in countries, such as USA, Japan, Germany, and U.K. and in industries, such as chemicals, pharmaceuticals, electronics and automotive (Lobo & Zhou, 2001). This subject has been an important issue among researchers in various countries. The global economy at the moment is skewing towards knowledge-based economy, hence the reason why most modern researchers are now developing interest in ICD. The new economy is now knowledge-based economy where value creation becomes one of the crucial issues in the world and tends to be based on intangible rather than tangible assets (Taliyang & Jusop, 2011).

Corporate governance code in Nigeria was first introduced by the Bankers' committee in August 2003. The code was applicable to all banks and other financial institutions that were operating in Nigeria. It was not strictly adhered to because it had no regulatory power backing it from the constitution. In 2003, the Securities and Exchange Committee (SEC) issued the Code of Best Practices on Corporate Governance in Nigeria. From this period, various bodies issued codes that were peculiar to their industries. In 2006, the Central Bank of Nigeria (CBN) issued the corporate governance code for banks in Nigeria. While in 2008, the National Pension Commission (PENCOM) issued its code of corporate governance for licensed pension operators in the country. Furthermore, in 2009, the National Insurance Commission (NAICOM) issued its industry-specific code of corporate governance to regulate the insurance industry in the country.

The National Code of Corporate Governance 2016 (which is currently under review) issued by the Financial Reporting Council of Nigeria (FRCN) covers various issues on: responsibilities of the board, board structure and composition, officers of the board, meetings of the board, board committees, appointment to the board and other relevant matters. It is expected that by the introduction and development of the corporate governance code in Nigeria, firms might be encourage to disclose more voluntary information on intellectual capital.

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Most of the researches on corporate governance and intellectual capital disclosure are in developed countries and to the best of the researcher's knowledge, there is paucity of studies on intellectual capital in developing economies like Nigeria, especially studies that cover the healthcare sector in Nigeria, which is an important sector that requires strong intellectual capital to be viable. Hence, this study intends to fill this gap in literature.

The rest of this study is organised as follows: Section 2 reviews previous research on intellectual capital disclosures. Section 3 develops the study's hypothesis. Section 4 specifies the research method applied in the study. Section 5 discusses the empirical results and finally, section 6 reports on the conclusion and recommendations.

### **2. Literature Review**

Corporate governance is the way and manner in which an organisation is governed and directed. There have been improvement in the corporate governance codes in Nigeria but most of its content is a replication of what we have in developed economies. It is pertinent that developing countries should have a corporate governance code that is peculiar to their environment. The essence of better governance is to make firms more accountable and transparent through stakeholders' relevant disclosure (Abeysekera, 2010). Literatures of this nature provide some evidence that low disclosure of intellectual capital information is an indication of weak governance practices in the governing reporting process (Haniffa & Cooke, 2002).

Intellectual capital is the aggregate sum of intangible values which comprises of human capital and structural capital (Skandia, 1994). Low and Kalafut (2002) expanded this definition by defining IC as an intangible assets which include technology, customer information, brand name, reputation and corporate culture that are invaluable to a firm's competitive power. Stewart (1997) posit that the components of IC are classified into knowledge, information, intellectual property and experience. One of the concepts that explain these definitions is the intangibility of the assets. Capital is categorized into human capital, physical capital and financial capital, but most firms report more on the physical and financial aspect. (Falikhatun, Aryani & Prabowo, 2011). Intellectual capital is a vital resource to an organisation and not disclosing on it might lead to information asymmetry. By reassuring a firm's investors about various aspects of its operations or performance, expanded disclosure leads to a reduction in information asymmetry between managers and investors and, ultimately to a reduction in information costs to be incurred by investors (Kim & Verrecchia, 1994; Cormier, Aerts, Ledoux & Magnan, 2009)

Hasan, Mohammad and Alam (2017) examine the determinants that influence intellectual capital reporting by reviewing the annual reports of 40 banks listed on the Dhaka Stock Exchange and it was found that corporate reputation, which represents board size and board independence have a significant positive impact on intellectual capital disclosure.

Bhattacharjee, Chakraborty and Bhattacharjee (2017) investigate the association between the extent of intellectual capital disclosure and the corporate attributes of listed banking companies in Bangladesh. The findings reveal that board size and size of audit committee are important attributes to explain the IC disclosure in Bangladesh, but no significant association was found between ICD and other independent variables like number of independent directors to the board, frequency of board meeting and ownership concentration.

In a similar study by Tejedo-Romero, Araujo and Emmendoerfer (2017), the corporate governance characteristics of Spanish companies included in the IBEX35 stock price index was examined. Content analysis was used to examine 115 annual reports from 23 IBEX 35 companies over 5 years. The study reveal that companies with the most information on intellectual capital are those in which managers have greater managerial ownership, fewer independent directors, separation of functions between the chairman and the chief executives, and larger board of directors.

Muttakhan, Khan and Belal (2015) empirically examine the links between corporate governance and intellectual capital. The sample consists of 135 non-financial companies listed on the Dhaka Stock Exchange (DSE) over a five year period (2005-2009). The study found that foreign ownership, board independence, and the presence of audit committees have a positive association with the extent of intellectual capital disclosure while family duality is negatively associated with the extent of intellectual capital disclosure.

Li et al (2008) investigate the relationship between intellectual capital disclosure and corporate governance variables (board composition, ownership structure, size and frequency of audit committee meetings and CEO role duality). The study examine a sample of 100 companies out of a population of 319 companies listed on the London Stock Exchange (LSE). The result of the analysis reveals that intellectual capital disclosure has a significant association with all the governance factors except for CEO role duality.

### *2.1 Theoretical framework*

The theoretical perspective of this study is anchored on the agency theory and legitimacy theory. The agency theory explains the contract that subsists between the principal and agent. It suggest that self-interest of managers and directors within the firm can compromise the best interest of investors (Fama, 1980; Fama & Jensen, 1983). Panda and Leepsa (2017) posit that agency theory discusses the problems that surface in the firms due to the separation of owners and agent (managers) and focuses on ways to mitigate the agency problem. In addition, the theory enables the firms in implementing the various governance mechanisms to regulate the agents' action in the jointly held corporations. Agents are expected to act in a way and manner that the expectations of owners and other stakeholders of the organisation are considered in their operations.

According to Dowling and Pfeffer (1975) legitimacy theory is:

*“a condition or status which exists when an entity's value system is congruent with the value system of the larger social system of which the entity is a part. When a disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy.”*

This theory posits that there is a *social contract* (i.e. the myriad expectations society has about how an organisation should conduct its operations) between the firm and the society in which it operates (Shocker & Sethi, 1973; Patten 1991; Mathew 1993). The continuous existence of the firm is largely dependent on these social contracts which are sometimes implicit or explicit in nature. Intellectual capital disclosure by a firm leads to information symmetry, which helps to bridge the legitimacy gap between owners and agent.

## **3. Hypothesis Development**

### *3.1 Board Size*

According to Jensen and Meckling (1976) board size is the number of directors serving in the board. Board size can help boards to overcome skill deficiencies in making more discretionary disclosure (Abeysekera, 2010). Larger boards are more likely to include increased pool of expertise that will enhance boards' information processing capabilities (Bhattacharjee, Chakraborty, & Bhattacharjee, 2017) thereby seeing the need to provide sufficient information to satisfy the firm's stakeholders. Most researchers report a positive relationship between board size and intellectual capital disclosure in both developed and developing countries (Abeysekera, 2010; Faisal, Hassan, Shahid, Rizwan, & Qureshi, 2016; Hasan, Mohammad & Alam, 2017; Shazali & Joseph, 2017) and a positive relationship between board size and corporate disclosures (Ferchichi & Skanji, 2017). In contrast, some researchers report a negative relationship (Falikhatun, Aryani & Prabow, 2010).

The size of the board will be operationalized using the number of directors serving in the board (Jensen & Meckling, 1976). Therefore, the discussion from above leads to the formulation of the hypothesis that: H1 – There is a positive significant relationship between board size and intellectual capital disclosure.

### *3.2 Board Composition*

Board composition in this study refers to the proportion of non-executive directors (including independent non-executive directors) over total number of directors. The National Code of Corporate Governance 2016 (Nigeria) requires a minimum of eight directors on the board, which should be made up of a maximum of one-third executive directors and a maximum of two-third non-executive directors. The number of independent non-executive directors shall not be less than half of the number of non-executive directors.

Taliyang and Jusop (2011) examine the impact of board composition on intellectual capital disclosure of Malaysian listed companies. It was found that board composition has a negative impact on

intellectual capital disclosure. This position is in contrast with some studies that found a positive significant relationship between proportions of independent non-executive directors with voluntary disclosure (Li et al., 2008). While other studies found a negative relationship (Ramadhan, 2014; Faisal et al, 2017). Forker (1992) suggests that non-executive directors would enhance the monitoring of the quality of firm disclosures and would reduce the benefits from withholding information. Thereby reducing the information asymmetry with the owners and the agents. Therefore, we hypothesize that: H2 – There is a positive significant relationship between board composition and intellectual capital disclosure.

### *3.3 Size of Audit Committee*

The audit committee otherwise known as statutory audit committee is made up of members who demonstrate knowledge, skills and experience necessary to address the company's area of greatest financial reporting risk (FRCN, National Code of Corporate Governance, 2016)

The role of this committee is to review the preparation of company's financial statements as well as the disclosure of value-relevant information such as intellectual capital (Taliyang & Jusop, 2011). Allegrini and Greco (2011) argue that according to the Resource Dependency theory, larger audit committees are willing to devote greater resources and authority to effectively carry out their responsibilities. Most researches report a positive relationship between the size of audit committee and the extent of intellectual capital disclosure (Ho & Wong, 2001; Pomeroy & Thornton, 2008; Li, Mangena & Pike, 2012; Madi, Ishak & Manaf, 2014; Bhattacharjee, Chakraborty & Bhattacharjee, 2017). Khan and Khan (2010) found a negative relationship between the size of audit committee and intellectual capital disclosure. Audit committee as an independent variable will be measured as the number of audit committee members. Based on this conflicting opinions we hypothesize that: H3 – There is a positive significant relationship between the size of audit committee and intellectual capital disclosure.

### *3.4 Frequency of Board Meetings*

Few researches have been examined to assess the impact of frequency of board meeting on intellectual capital disclosure. The revised National Code of Corporate Governance (NCCG) in Nigeria requires that for the board to effectively discharge its oversight function, there is need for it to meet at least once every quarter and each director is required to attend at least two-third of all board meetings. The frequency of board meeting can be used as a measurement of directors' sense of responsibility towards business (Faisal et al, 2016). We expect that the frequency of board meetings where issues that affect the company and other disclosure matters are being deliberated upon would have influence on the level of voluntary disclosure. Effectiveness of a board depends on how often the board members meet to discuss the various issues facing a firm (Vefeeas, 1999). Lack of sufficient meetings could inhibit or vitiate deliberations thereby affecting resolutions on voluntary disclosure. Frequent board meetings could lead to increase in performance and it is a pledge to continuously share information with managers (Brick & Chidambaram, 2007). According to Madi et al (2014) frequency of meeting is positively associated with the extent of corporate voluntary disclosure. In contrast, studies conducted by Bhattacharjee et al (2017); Ferchichi and Skanji (2017); Faisal et al (2016) found a negative relationship between frequency of board meeting and intellectual capital disclosure. From the above discussion, we therefore hypothesize that: H4 – There is a positive relationship between frequency of board meeting and intellectual capital disclosure.

## **4. Methodology**

### *4.1 Sample*

The total population of the study is ten (10) listed healthcare firms in Nigeria as at 2017. Purposive sampling technique was adopted to arrive at a sample size of seven firms due to the availability of their annual reports. The annual reports of the other three firms were not completely available on the internet and those found did not disclose sufficient IC items for analysis. Hence, the seven firms were selected for analysis. The sample size forms 70 per cent of the total population which is sufficient. The annual reports of the companies from 2013 to 2017 were analyzed using multiple regression analysis. Content analysis technique was also adopted to obtain the intellectual capital disclosure score; this technique is widely used by various researchers (Li et al., 2008; Tejedo-Romero et al., 2017; Li et al, 2008; Hasan et al., 2017). Most of the IC items were derived from the Chairman's report and other qualitative information in the annual reports.

*4.2 Disclosure Index Construction and Dependent Variable*

The intellectual capital disclosure checklist used for this study was adapted from the study of Muttakin, Khan, & Belal (2015). It was used in this study to examine the relationship between corporate governance structure and intellectual capital disclosure. The ICD checklist is made up of 32 items

categorised into internal capital (7 items), external capital (10 items), and human capital (15 items). A score of 1 is assigned to a firm if an item on the ICD checklist is disclosed and 0 if not disclosed. Finally, the formula below was used to ascertain the ICDS for each company.

$$ICDS = \frac{\text{Score obtained}}{\text{Maximum possible score}} \times \frac{100}{1}$$

*4.3 Model Development*

The estimated multiple linear regression model was employed to test the relationship between corporate governance mechanisms and the level of intellectual capital disclosure. The regression model developed for this study is:

$$ICDS = \beta_0 + \beta_1 BSIZE_{it} + \beta_2 BCOMP_{it} + \beta_3 SACOM_{it} + \beta_4 FBORM_{it} + \varepsilon$$

Where:

ICDS = Intellectual Capital Disclosure Score

$\beta_0$  = Intercept

$\beta_1$  SIZE = Board Size

$\beta_2$  COMP = Board Composition

SACOM = Size of Audit Committee

FBOD = Frequency of Board meeting

$\varepsilon$  = residual errors.

As mentioned above, a positive relationship is predicted between the ICDS and independent variables.

Table 4.1: Operationalisation of Variables

VARIABLES	TYPE	MEASUREMENT	APRIORI EXPECTATION
Intellectual capital disclosure index	Dependent	Intellectual capital disclosure index adapted from Muttakin et al (2015), measured as scores obtained divided by maximum possible scores.	
Board size	Independent	Total number of directors in the board	+
Board composition	Independent	Proportion of the non-independent directors to the total directors	+
Size of Audit Committee	Independent	Total number of audit committee members	+
Frequency of Board meeting	Independent	Number of board meeting during the year	+

Source: Researcher’s design (2018)

**5. Empirical Results**

*5.1 Regression Results*

The results of the multiple regression analysis of the association between the independent variables (board size, board composition, size of audit committee and frequency of board of directors meeting) and the intellectual capital disclosure in the annual reports of a sample of listed healthcare firms show that the F-ratio is 37.755 (p-value=0.000)(Table 1). This result statistically supports the

significance of the model. The model has an adjusted R<sup>2</sup> of 0.865 (86.5%), which implies that the independent variables explain 86.5% of the variance in intellectual capital disclosure score (Table 2).

From the regression results, board size and board composition turnout to be statistically significant at confidence level of 95% with p-values of 0.000 and 0.001, while size of audit committee and frequency of board meeting are non-significant at confidence level of 95% with p-values of .847 and 0.787 (Table 3).

Table 5.1: Multiple Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
	.942 <sup>a</sup>	.888	.865	3.78133	.888	37.755	4	9	.000	1.399

Table 5.2: Multiple Regression ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2159.341	4	539.835	37.755	.000 <sup>b</sup>
Residual	271.671	19	14.298		
Total	2431.013	23			

Table 5.3: Multiple Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	Sig.	Collinearity Statistics	
	B	Std. Error	Beta		Tolerance	VIF
(Constant)	32.716	6.540		5.002	.000	
Board Size	7.041	1.204	1.725	5.848	.000	.068
Board Composition	-.486	.121	-.974	4.027	.001	.101
Size of the Audit Committee	-.354	1.810	-.029	-.196	.847	.276
Frequency of Board of Directors Meeting	-.269	.983	-.025	-.274	.787	.705

5.1.1 Board Size

From the regression results (Table 3), board size has a p-value of 0.000 (0%). This reveals that board size is statistically significant at 95% confidence interval. Therefore, we accept the hypothesis that states there is a positive significant relationship between board size and intellectual capital disclosure. These results are in line with prior studies that report a positive significant relationship between the size of the board and intellectual capital disclosure (Abeysekera, 2010; Faisal et al, 2016; Hasan et al, 2017; Shazali & Joseph, 2017).

5.1.2 Board Composition

The association between board composition and intellectual capital disclosure is significant. With a p-value of 0.001 (1%). We accept the hypothesis that states there is a positive significant relationship between board composition and intellectual capital disclosure. This result is in tandem with studies that reports a positive significant relationship between board composition and intellectual capital disclosure (Li et al., 2008).

5.1.3 Size of the Audit Committee

This variable from the regression results show an insignificant impact on intellectual capital disclosure. It has a p-value of 0.847 (84.7%). Therefore, we reject the hypothesis that there is a positive

significant relationship between size of the audit committee and intellectual capital disclosure. These results are not in line with prior studies that reports a positive significant relationship between size of the audit committee and intellectual capital disclosure. In the present study, it reveals that the size of the audit committee does not have any impact on the extent of intellectual capital disclosure. This result is inconsistent with the study by Khan and Khan (2010).

#### *5.1.4 Frequency of Board Meeting*

In the present study, frequency of board meeting does not have any significant impact on the extent of intellectual capital disclosure, with a p-value of 0.787 (78.7%) and at 95% confidence interval. We therefore reject the hypothesis that there is a positive relationship between the frequency of board meeting and intellectual capital disclosure. This result is in tandem with the study by Faisal et al (2016).

#### *6. Conclusion*

This study examines the role of corporate governance structure and intellectual capital disclosure of listed healthcare firms in Nigeria. The paper investigates the relationship between corporate governance variables (board size, board composition, size of audit committee and frequency of board meeting) and intellectual capital disclosure in the healthcare firms in Nigeria. The study revealed that size of audit committee and the frequency of board meetings have no significant impact on intellectual capital disclosure. However, board size and board composition have significant and positive impact on intellectual capital disclosure. The findings of this paper is consistent with previous studies that larger boards are more likely to include increased pool of expertise that will enhance boards' information processing capabilities (Bhattacharjee et al, 2017) thereby seeing the need to provide sufficient information to satisfy the firm's stakeholders. Therefore, organisations should ensure that they have a sizeable number of directors in their board with the requisite expertise as this would likely influence their decision on ensuring that adequate disclosure is being made as regard intellectual capital. In addition, the mixture of executive directors and non-executive directors/independent non-executive directors should be taken seriously in order to ensure equity and a level playing field for the directors.

Findings of this paper are likely going to be of immense benefit to policy makers, employees, researchers, investors and firms as they provide insight into the effect of corporate governance structure on intellectual capital disclosure. In addition, the findings of this study contributes to existing literatures on corporate governance structure and intellectual capital disclosure. Nevertheless, the limitations of the study are that the sample size of seven firms may not be sufficient to give a very robust empirical results and the intellectual capital disclosure index adopted for the study may not adequately capture the corporate governance variables relevant to Nigeria. Finally, future research could examine the effect of other corporate governance variables on intellectual capital disclosure of listed healthcare firms in Nigeria.

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## Appendix 1

### Intellectual capital disclosure checklist

#### **I. Internal capital category**

- |                            |   |
|----------------------------|---|
| 1. Intellectual properties | It is a term that encompasses patents, copyrights, trademarks, trade secrets, licenses, commercial rights and other related fields.                             |
| 2. Management philosophy   | The way leaders in the firm think about and its employees i.e. the way a firm is managed.   |
| 3. Corporate culture       | Specific reference to working culture.  |
| 4. Processes               | Management or technical processes implemented   |
| 5. Systems                 | Information systems.  |
| 6. Networking              | The systems available in a firm that allows interaction of people via a broad array of communication media and devices.   |
| 7. Financial relations     | Defined as a favourable relationships the firm has with investors, banks, and other financiers, financial rating, financial facilities available, and listings. |

#### **II. External capital category**

- |                                      |  |
|--------------------------------------|--|
| 1. Brand                             | Description of brands owned/bought by the firm.  |
| 2. Customer satisfaction and loyalty | Reference to overall satisfaction of customers   |
| 3. Quality standards                 | Includes ISO accreditations, reference to quality initiatives.                                       |
| 4. Company image/ reputation         | It refers to the perception of a firm by the stakeholders.   |
| 5. Favourable contract               | Favourable contract signed.  |
| 6. Business collaborations           | Reference to informal collaborations with business partners which did not lead to formal agreements. |
| 7. Licensing agreements              | Any partnership or collaborative agreements with other firms   |
| 8. Franchising agreements            | Any franchise agreements signed.   |
| 9. Distribution channels             | Reference to supply chain management and distribution.   |
| 10. Market share                     | Any mention of product/division market share or competitive Position.                                |

#### **III. Human capital category**

- |   |   |
|---|---|
| 1. Number of employees                    | Clear detail of total number of employees.  |
| 2. Know-how                               | Description of knowledge, know-how, expertise or skills of directors and other employees.   |
| 3. Vocational qualifications              | Additional qualification held by employees and directors.   |
| 4. Employee training                      | Any mention of training programme.  |
| 5. Employee education                     | Education of directors as well as other employees.  |
| 6. Work related knowledge                 | It mainly relates to knowledge that employees have related to their current job description, including employees' previous working experiences. |
| 7. Entrepreneurial spirit, innovativeness | It refers to employee engagement, empowerment, and creativity.  |
| 8. Union activity                         | Trade union relations.  |
| 9. Employee thanked                       | Thanks given to the employee.   |
| 10. Employee involvement in the community | Company and employee involvement in community based activities  |
| 11. Employee share and option scheme      | Employee share and option ownership plan  |
| 12. Employee benefits                     | Employee benefits such as provident fund, gratuity and group Insurance.   |
| 13 Profit sharing                         | Employee profit sharing.  |
| 14. Health and safety                     | Employee occupational health and safety.  |
| 15. Equity issues                         | Equity issues such as race, gender, disability and ethnic group   |

Source: Adapted from Muttakin, M. B., Khan, A., & Belal, A. R. (2015)

**Appendix 2**  
Regression

**Descriptive Statistics**

	Mean	Std. Deviation	N
Intellectual Capital Disclosure Score	67.8406	10.28087	24
Board Size	8.9167	2.51805	24
Board Composition	50.0917	20.60633	24
Size of the Audit Committee	5.5833	.82970	24
Frequency of Board of Directors Meeting	4.9583	.95458	24

**Correlations**

	Intellectual Capital Disclosure Score	Board Size	Board Composition	Size of the Audit Committee	Frequency of Board of Directors Meeting
Pearson Correlation	1.000	.837	.536	.750	.453
	.837	1.000	.883	.607	.415
	.536	.883	1.000	.262	.228
	.750	.607	.262	1.000	.526
	.453	.415	.228	.526	1.000
Sig. (1-tailed)					
	.000	.000	.003	.000	.013
	.000	.000	.000	.001	.022
	.003	.000	.000	.108	.142
	.000	.001	.108	.000	.004
	.013	.022	.142	.004	.000
N	24	24	24	24	24
	24	24	24	24	24
	24	24	24	24	24
	24	24	24	24	24
	24	24	24	24	24

**Coefficient Correlations<sup>a</sup>**

Model		Frequency of Board of Directors Meeting	Board Composition	Size of the Audit Committee	Board Size
Correlations	Frequency of Board of Directors Meeting	1.000	.071	-.221	-.113
	Board Composition	.071	1.000	.700	-.944
	Size of the Audit Committee	-.221	.700	1.000	-.779
	Board Size	-.113	-.944	-.779	1.000
Covariances	Frequency of Board of Directors Meeting	.967	.008	-.393	-.134
	Board Composition	.008	.015	.153	-.137
	Size of the Audit Committee	-.393	.153	3.275	-1.698
	Board Size	-.134	-.137	-1.698	1.450

a. Dependent Variable: Intellectual Capital Disclosure Score

**Collinearity Diagnostics<sup>a</sup>**

Model Dimension	Eigenvalue	Condition Index	Variance Proportions				
			(Constant)	Board Size	Board Composition	Size of the Audit Committee	Frequency of Board of Directors Meeting
1	4.855	1.000	.00	.00	.00	.00	.00
2	.111	6.625	.02	.00	.07	.00	.03
3	.018	16.438	.35	.01	.01	.00	.68
4	.014	18.485	.13	.08	.10	.14	.29
5	.002	45.815	.51	.91	.82	.85	.00

a. Dependent Variable: Intellectual Capital Disclosure Score

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	48.1680	86.2598	67.8406	9.68940	24
Residual	-.330470	7.80017	.00000	3.43683	24
Std. Predicted Value	-.2030	1.901	.000	1.000	24
Std. Residual	-.874	2.063	.000	.909	24

a. Dependent Variable: Intellectual Capital Disclosure Score

**Appendix 3**

**List of sample listed healthcare firms**

1. Pharma Deco
2. Fidson
3. Ekocorp
4. Union Diagnostic
5. Evans Medical
6. Neimeth
7. Glaxosmithkline