Value Relevance of Intellectual Capital Reporting in Top Nigerian Firms

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Abstract: The purpose of this study is to examine the link between corporate financial performance and Intellectual capital disclosures among top Nigerian companies for a four year period from 2006 to 2009. Return on capital employed was utilized as a proxy for financial performance while an Intellectual capital disclosure index was developed to capture the extent to which such voluntary disclosure was made. The study employed board nationality diversity as a moderating variable in the investigated relationship. This was denoted as the number of nationalities found on the board. A multiple regression analysis was used to investigate the potential relationship existing among the variables. Results of this study show that intellectual capital disclosures have a positive significant impact on financial performance while board nationality diversity has no impact on financial performance. The findings in this study provide some evidence supporting the signals theory whereby voluntary disclosure practices inform stakeholders of certain vital information which are critical in investment decision making and consequently have a return effect on corporate financial performance. The study thus recommends that firms adopt a holistic voluntary disclosure framework in order to enjoy associated economic benefits that accrue in this vein.

Keywords: Financial Performance; Knowledge Assets; Board Diversity

1   Introduction

The relevance of traditional financial reporting information has greatly diminished over the years (Lev and Zarowin, 1999). Its limitations have become much more pronounced more so with the accounting scandals that have characterized the corporate scene. Attention is beginning to shift from the commonly investigated financial indicators to other non-financial variables which seem to have a knock-on effect on the bottom line. Investors tend to consider a variant of factors (financial and non-financial) while making investment decisions. This has also been reflected in the reported shift in literature from traditional economic systems to knowledge intensive economic systems.

According to Holland (2003), the knowledge based economy recognizes intellectual capital (IC) as pivotal component of firm overall growth and has become a major source of firm competitive advantage. The non-recognition of this knowledge element (IC) as an asset by traditional accounting practices has resulted in the increase of information asymmetries between companies and the users of financial reports(Mc Namee, 2001; Reed et al; 2002; Byrnes and Derhovanesian,2002). In this light, several studies (Lev, 2001; Holland, 2006; Arvidsson, 2011) have suggested the disclosure of IC information in financial statements so as to reduce information asymmetry.

The term 'intellectual capital' has become universal and is generally accepted as a source of value creation (Guthrie, 2001) but however ignored by traditional financial reporting (Amir and Lev, 1996; Busacca and Maccarone, 2007). Intellectual capital grew out of studies conducted in very different parts of the world in the 1970s and 1980s. Itami (1987) argued that IC is an intangible asset which includes technology, brand name, customer loyalty, goodwill and copyrights. Pulic (2001) concludes that IC refers to employees and their abilities to create value added efficiency which could be measured both tangible (capital employed) and intangible (human and structural capital). Sullivan (2000) defines IC as "knowledge that can be converted into profits". Basically, IC comprises of three components: human capital, structural capital and relational or customer capital (Yang and Lin, 2009).

Human capital consists of skills, competencies and abilities of individuals and groups; structural capital refers to knowledge assets alternatively referred to as intellectual property such as patents, copyrights, trademarks, models, knowledge artifacts, computer networks/ software and so forth while customer/ relational capital is the strength of relationships with customers, suppliers and allies such as customer loyalty, brand equity, etc. Every organization possesses all these indicators though in variants which depends on its strategy and background.

From the point of traditional accounting, intellectual capital seems not to fit the definition of an asset. Accounting rules provide that an asset must be tangible and must have been acquired in one or more transactions so that it has a market value. Intellectual capital indicators do not fit into this definition. However, with the introduction of International Financial Reporting Standard (IFRS) 3 (a regulation demanding the identification and valuation of intangible assets in business combinations) a disclosure opportunity for intellectual capital is being considered and anticipated. It is indeed an opportunity to test the relevance of proposed models aimed at reducing the gap between IC accounting and financial accounting (Petty and Guthrie, 2000). One question readily comes to mind while considering the above issues. What relevance does IC information disclosure have to firms that adopt a reporting framework which encompasses this factor? In other words, is there a premium on value or performance for firms that report on the various IC constituents? This study is thus poised to unravel the possible nexus that exists between firms' financial performance and intellectual capital reporting in top Nigerian firms.

2   Research Assumption

This study assumes that intellectual capital performance is equivalent to intellectual capital information disclosure. In other words, companies report IC information based on their IC performance.

2.1   Theoretical Underpinnings

The signals theory is used as the underlying theory of this study since it provides an explanation to voluntary disclosure behaviors as a control mechanism aimed at reducing information asymmetry arising from separation between ownership and management. Li et al; (2008) support this argument by demonstrating in their study that high intellectual capital disclosure reduces opportunistic behavior and information asymmetry. The signals theory corroborates these positions.

Voluntary disclosure practices are destined to inform shareholders and the capital market of certain vital information which could be critical to investment decision making. Voluntarily disclosed information is signal addressed to the investors with a purpose of reducing information asymmetry between the 'insiders' and the 'outsiders' (Matoussi and Chakroum, 2009).

Another useful theory that explains the relevance of intellectual capital reporting is the legitimacy theory. Legitimacy is said to exist as there is congruence between the activities of the organization and societal expectations (Sharifah et al, 2008). Otherwise the organization has to deal with the 'legitimacy gap' by improving its actual performance, changing the societal expectation or the perception of its performance, or deviating away the public attention from the issue under scrutiny (Lindblom, 1994). The theory explains why companies disclose intellectual capital information, and as such, to bring legitimacy to an organization, IC disclosures have been a part of the portfolio of strategies employed by accountants and managers to achieve this target.

2.2   Prior Research and Hypotheses Development

Empirical literature reveals that intellectual capital stimulates the business performance of organizations (Rehman et al; 2011). Scholarly definition of IC by Sullivan (2000) as "knowledge that can be converted to profit" suggests its value relevance. A study was conducted to measure intellectual capital performance and its impact on financial performance (ROE, EPS) of 150 listed companies in Singapore Stock exchange. The value added intellectual capital model was used to measure IC performance. It was concluded that IC performance has significant relation with firm's present and future performance (Tan et al, 2007).

Petty and Guthrie (2000) also investigate the benefit of intellectual capital to an organization's performance. They find that IC contributes to enterprise value and national economic   performance. Amir and Lev (1996) examine the value relevance of financial accounting information and non-financial information within the telecommunications industry. They identify the fact that this industry heavily invests in research and development, customer-base creation, brand and franchise development and other IC related issues. They found no value relevance of financial information however non-financial information was significantly value relevant in the return-earnings regression model.

Ahangar (2011) in his study of Iranian firms assessed the extent to which intellectual capital performance/ disclosure impacts financial returns. He observed that Human Capital Efficiency (HCE) has significant positive impact on financial returns of companies whereas structural capital had no significant impact on financial performance of sampled firms. A related study conducted in Australia by Laing, Dunn and Lucas (2010) examined the empirical relationship between IC performance/ disclosure and financial performance of the hotel industry for a period of 2004- 2007 using the Value Added Intellectual Capital methodology. They concluded that IC efficiency is based on human capital efficiency which positively encourages financial performance (Return of assets) in the case industry in Australia. Sanda et al (2005) demonstrate that IC has positive relation with financial performance of firms and same findings are supported by Riahi- Belkaoui (2003) who similarly in their investigation of US multinationals concluded that IC has positive and substantive influence on corporate performance.

Based on the foregoing, we therefore hypothesize in null form that:

H_1:- Intellectual Capital Disclosure has no significant impact on financial performance.

Extant literature offers an existing relationship between board nationality diversity and performance (Oba et al; 2012). Sanda et al; (2005) found that firms with foreign CEOs tend to perform better than those with indigenous CEOs. It is expected that the number of foreign directors or the diversity of nationality in a board would trigger better information disclosure strategy, bring diverse experience to the table and then consequently have a multiplier effect on performance. This study hypothesizes that a more nationally diverse board may be more creative and innovative and thus has better financial performance.

We thus hypothesize that:-

H_2: Board nationality diversity has significant impact on financial performance.

3   Methodology

3.1   Sampling

The sample for this study consists of the twenty Nigerian companies that made the Forbes Africa top 25 companies (2012) in West Africa. These companies were assessed by Forbes Africa as successful risk takers and job creators that have sustained excellence. The Forbes Award was ranked in terms of

market capitalization, revenue and profit of the firms. Expectedly, these companies must have demonstrated a high level of intellectual capital performance via knowledge assets utilization to be ranked at this top echelon. However we observe the following filters in selecting our final sample:-

1) Banks were not included in the study firms due to the special regulatory environment in which they operate

2) Firms that were not listed or were delisted during the study period (2006- 2009) were excluded from the sample.

A final sample of 10 companies was selected for the investigation. The list is found in Appendix 1.

3.2 Data Source

Annual reports of the selected firms were utilized for obtaining raw data. According to Sujan and Abeysekera (2007), annual reports are the major external reporting vehicle used for communicating IC information (Sujan and Abeysekera, 2007). They also offer opportunities for comparative analysis of financial performance and management policies across reporting periods (Guthrie et al; 2004).

3.3 Model Specification/Measurement of Variables

The study examines the impact of Intellectual Capital Disclosure Index (ICDI) on financial performance using an OLS multiple regression model. Financial performance was represented using return on capital employed. A content analysis approach was employed to develop IC disclosure index. A dichotomous non-weighted approach was used to assign '1' when an attribute appears in the report and '0' when such attribute is absent. A company could score a maximum of the 22 tested attributes and minimum of zero points. The model appears thus:

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$$ROCE = b_0 + b_1 ICDI + b_2 BND + eit \ldots\ldots\ldots \text{ (i)}$$

Where:

ROCE = Return on Capital Employed

ICDI = Intellectual Capital Disclosure Index

BND = Board Nationality Diversity (Number of nationalities represented in the board).

Eit = Stochastic disturbance term

4 Results and Discussions

Table 1 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.318[a]	.101	.063	.61146	1.129

a. Predictors: (Constant), BND, ICDI

b. Dependent Variable: ROCE

Table 2 ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.978	2	.989	2.645	.048[a]
	Residual	17.573	47	.374		
	Total	19.551	49			

a. Predictors: (Constant), BND, ICDI

b. Dependent Variable: ROCE

Table 3 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.533	.548		-.973	.336
	ICDI	.090	.039	.318	2.291	.027
	BND	-.004	.078	-.006	-.045	.964

a. Dependent Variable: ROCE

From our test results, in testing the statistical reliability of the coefficient estimates, it is found that ICDI (Intellectual Capital Disclosure Index) has a positive relationship with financial performance as represented by ROCE (Return on Capital employed) with a regression coefficient of .318 (see table 3). The positive relationship has a significant value, i.e. the probability value of .027 ($p<0.05$). Therefore, the null hypothesis was rejected by this result.

Conversely, results show that BND (board nationality diversity) is insignificant in predicting financial performance with p value of .964 > 0.05. This result indicates that there is no relationship between the number of foreigners on the board and financial performance (ROCE). Therefore the null hypothesis is accepted by this result. The coefficient of determination (adjusted) in table 1 was a minuscule 6.3% suggesting that 93.7% of the changes in financial performance are attributable to other unexplained factors not inclusive in the model. However, the overall significance of the model was ascertained with the F statistic showing a significance value of 0.48.

5   Conclusion

Based on the results of this study, stakeholders need to assess in details the specific content of IC disclosures in firms before taking crucial decisions. Our results support the findings of Tan et al; (2007) that IC performance has a significant relation with a firm's present financial performance. This study also observed the potential influence of the number of foreign directors as a moderating variable in the relationship between performance and intellectual capital. The study finds empirical evidence

that financial performance is not related to the number of foreign directors on a firm's board. This is quite at odds with traditional arguments on the relevance of a geographically diversified board on performance and goes to say that performance is not a function of board diversity. However this study is subject to a limitation. This is emphasized in the results with the predictive power of our model at an infinitesimal figure of 6.3%. It goes to show that there exist several other influencing factors that could substantially give a strong prediction to performance which have not been incorporated in the model but however interact with IC information / performance to trigger financial performance. It is recommended that future researchers investigate variables such as size, leverage, and industry type while conducting further related works. This could provide more insights and encourage generalizability of findings. Nevertheless, this study contributes to the IC disclosure literature by providing a firsthand awareness of its relationship with financial performance in Nigeria.

6   References

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Appendix 1
Sample Companies
1. Lafarge Cement WAPCO
2. Total Nigeria Limited
3. Unilever Nigeria
4. PZ Cuzzons Nigeria Ltd
5. UACN
6. Cadbury
7. Nigeria Breweries
8. Flour Mills Nigeria Plc
9. Guinness Nigeria Plc
10. Nestle Nigeria Plc

Appendix 2
Intellectual Capital Disclosure Framework
A. Human Capital
1. Numbers of Employee
2. Employee Equity/ Equal opportunities
3. Training
4. Staff Health and Safety
5. Employee welfare
6. Compensation Plan/ bonus
7. Career Development
8. Employees Knowhow/ Education level
9. Employee Remuneration
10. Human Resource Policy/Human Resource Department
B. Structural Capital
11. Intellectual Properties- Patents, copyrights and Trademarks
12. Research and Development
13. New Product Line
14. New Technology
15. Information Technology/ Information Systems, Software Development/ Networking Systems.
C. Relational Capital
16. Market Share
17. Business Partnering- Franchising, Suppliers, Government, Licensing Agreement, Joint Venture.
18. Supply Chain/Distribution Networks.
19. Promotion Strategies/ Competitive Intelligence.
20. Corporate Image- Social Responsibilities, Environmental Management/ Protection, Statement of Image and Corporate Culture
21. Brands- Range of Products and Services
22. Product Awards

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