



## **Webometric Analysis of Intellectual Capital Reporting and Corporate Financial Performance in Nigeria**

<sup>1</sup>Dr. Nwaiwu, J. N. & <sup>2</sup>Nwaekpe, U.C.

<sup>1</sup>Department of Accounting, Faculty of Management Sciences,  
University Port Harcourt, Port Harcourt, Nigeria  
[johnsonnwaiwu@gmail.com](mailto:johnsonnwaiwu@gmail.com)

<sup>2</sup>Department of Accounting, Faculty of Management Sciences,  
University Port Harcourt, Port Harcourt, Nigeria

### **ABSTRACT**

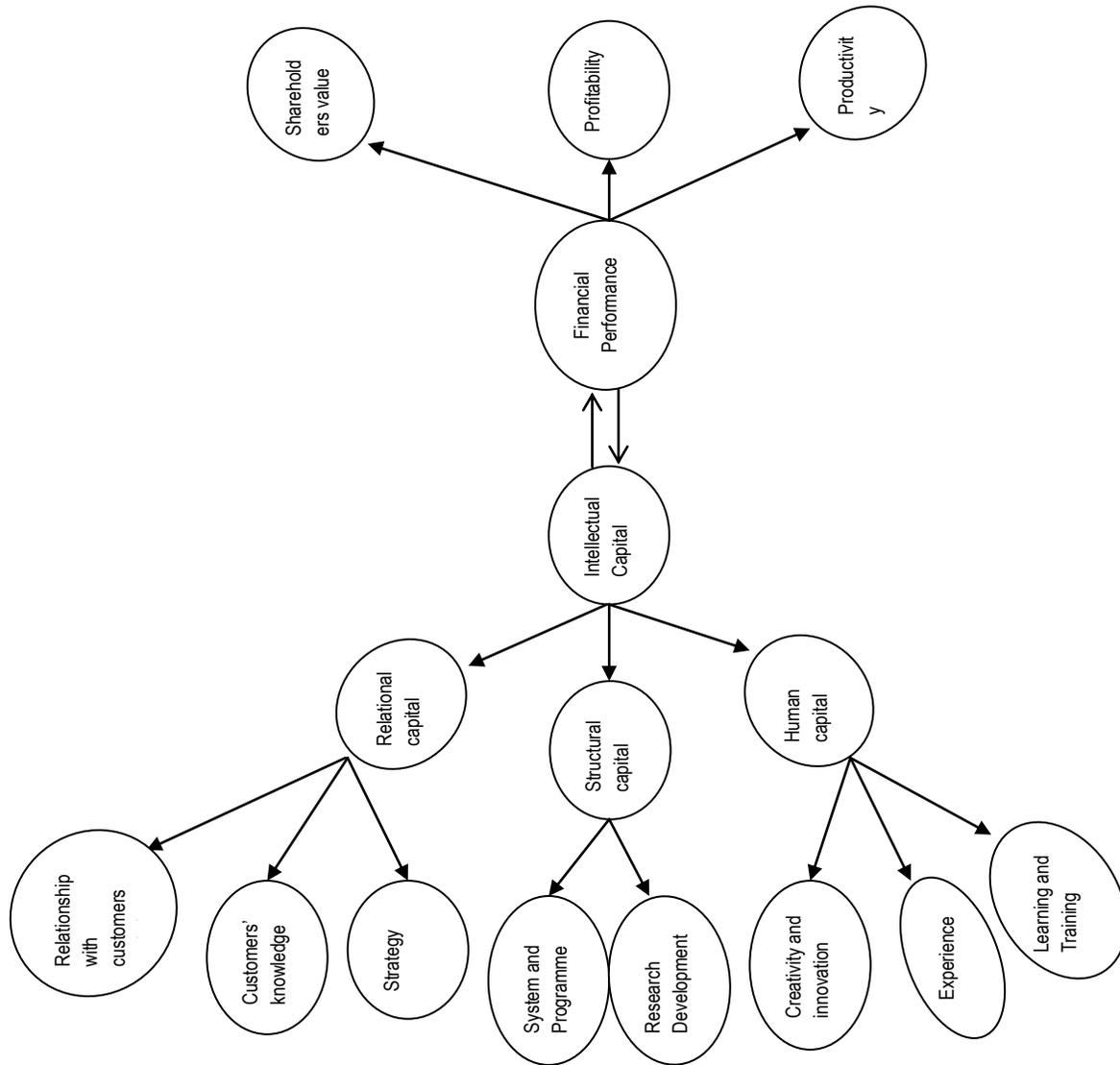
Organizations are spending quality time to build their “Intellectual Capital” by attracting people with talent; a caliber that has become a valuable asset in the business world, especially since talented people are difficult to find. The purpose of this study is to empirically explore and explain the effect webometric investigation of “intellectual capital reporting” on “corporate financial performance” of 12”quoted manufacturing firms” in Nigeria from 2011-2015. Time series data on different types of “intellectual capital” on “debt-to-equity ratio” were collected from “Nigerian Stock Exchange” and “Manufacturing Association of Nigeria”. “Descriptive statistics, Augmented Dickey – Fuller and Multiple Linear regression analysis” was used in analyzing the data with the aid of “special package for social sciences” and ‘E-view” version 8. The “econometric results indicate that intellectual capital” has a significant effect on “corporate financial performance; explaining about 39.4% of the variation in “debt-to-equity”, “Human capital” were found to have significant effect on financial performance. The study therefore, conclude that “Human capital” has a very high potency to make significant contribution to Debt-to-Equity and recommends that firms should harness the benefits accruable in external relationships, while practitioners must recognize that although human capital (HR), structural capital (ICT) and relational capital (Marketing) departments of manufacturing firms are typically disparate units that often do not integrate their services, they must attempt to reconcile their divergent views and coordinate their various processes so that a more holistic perspective on the intangible value of the firm can be more readily realized.

**Keywords:** “Human Capital, Debt-to-Equity, Intellectual Capital, Corporate Financial Performance, Manufacturing Companies.”

### **INTRODUCTION**

Over the last twenty years, “Intellectual Capital” (IC) has been the subject of several interesting developments, which led to its establishment as a recognized field of research and action. Yet, in spite of the already observed effort “IC” research is still in its infancy, and there is a need to consider to what extent it contributes in a sufficient way, to problematising managerial and policy issues of the knowledge economy. One of these challenges lies in considering the dynamic aspects of performance, and how intellectual capital research can address it in a proper way (Zonty, 2000; Barney 2001; Cillemi & Gui, 2002; Firer & Stainback, 2003; Palic, 2004; Ming; Shu & Yuhachany, 2005; Goh, 2006; Clarke; Say & Rosalived, 2007; Cabrita & Boutis, 2008; Sanchz; Elena & Castrillo, 2009; Ramirez, 2010; Khalique; Shawi; Isa & Ayeel, 2011; Pal & Soriya, 2012; Salteh, Nahamdit & 2013; Sudibya & Restuti, 2014; Rajith, 2015; Giuliani & Branrstrain, 2016; Onyekwele; Ubesie, 2016; Sngaolu; Oaifade & Ajulu, 2017). But quite simultaneously, several intellectual scholars, taking a strategic accounting perspective, addressed the issue of intellectual accounting from a dynamic perspective. These scholars put forward the argument that we should go further the first generation of taxonomies; and instead of viewing on rather static categories of intellectual capital they emphasized that different elements of intellectual capital play different roles in different contexts, for specific types of companies or for specific types of organizations. The dynamic aspects of intellectual capital appear here as closely related to the idiosyncratic nature of performance. Thus, it is expected that the accounting treatment of intangible affect the firms’ future returns, in particular their “financial performance indicators. In particular their profitability (Zeghal, & Maaloul-, 2010; Macerinskiene & Suruilaite; 2011; Kianto etal 2013; Tudor etal, 2014;

Salchi et al, 2014; Sarvilaite et al 2015). Even empirical evidence by Tador et al (2014), the level of intangibles has a direct relationship with profitability, by comparing the intangibles-to-total assets ratios and other measure of profitability such as “return on assets, return on capital employed, gross margin. Based on several models and approaches (Robinson & Schmid, 2004; Henry & Pinch, 2004; Chu., Chan., Ya., Ya & NG, 2011; Cameron; Gelbach & Miller, 2011; Ahanger, 2011; Alghifari; Triharjone & Juhaeni, 2012; Ulum., Ghozail & Piowanto, 2014; Sudibya & Restuti, 2014). Strikingly, intellectual capital empirically have been identified and managed as key drivers of performance and profitability. These immaterial resource are included on the firms’ financial statements or disclosures in complimentary reports (Lopes 2010, Cahill., Sidha & Kansal; Sangaolu; Onifade & Ajulo, 2017). Towards the increase of value relevance of firms. Hence, the “accounting of intellectual capital influence on performance. In term of competitiveness, as well as financial revenues. According to Tseng & Gou 2005; Nwaiwu & Aliyu, 2018) “the accounting of intangibles is a key managerial mechanism for firms in the knowledge economy” Many studies have been conducted on intellectual capital in many developed countries of the world because of its vital role in enhancing corporate performance (Madininos, Šević, & Tsairidis, 2009, Ahmad & Mushraf, 2001, Cabrera & Bontis, 2008). Knowledge being the new engine of corporate development has become one of the great clichés of recent years, as such, there is no doubt that successful companies tend to be those that continually innovate, relying on new technologies, the skills and knowledge of their employees rather than assets such as plants and machinery (CIMA, 2001). Effective management of knowledge-based intellect and intangible assets thus has become a key to corporate success, especially in the knowledge-based environment like ours (Tseng and Goo, 2005; Quinn, Anderson, & Finkelstein, 1996). The difference between the market value and book value of a company is said to represent its intellectual capital (Tseng and Goo, 2005; Edvinson & Malone, 1997; Roos & Roos, 1997; Sveiby, 1997; Bukh, Larsen, & Mouritsen, 2001). Intellectual capital can be seen as the knowledge-based equity of a company (IFAC, 1998). It includes assets relating to employee knowledge and expertise, customer confidence in the company and its products, brands, franchises, information systems, administrative procedures, patents, trademarks and the efficiency of company processes (Danish Trade and Industry Development Council 1997, Ernest & Young, 2000). With this growth in significance of intangible, knowledge-based, intellectual factors (also known as intellectual capital) in driving business success, it is important that accounting and reporting practices develop to effectively account for these major aspects of business performance. In the area of corporate reporting, accountancy practices historically evolved to enable managers to report to external stakeholders (primarily providers of capital) on managers’ stewardship of tangible resources (Edvinson & Malone, 1997). Now financial accounting and reporting practice needs to continue to adapt to provide stakeholders (especially shareholders and investment advisors) with effective information regarding the key Intellectual Capital (IC) value drivers of any business. Without the provision of such information, corporate reports would be an ineffective medium for stakeholders to rely upon when making decision, such as investors’ decisions regarding whether to buy, hold or sell shares. (Holland, 2004, 2006)



**Figure 1: Operational Framework of Webometric Intellectual Capital Reporting and Corporate Financial Performance in Nigeria.**

The remainder of the paper is organized as follows after an updated analysis. The introduction. Section 2 discusses spheres of influence of the Webometric analysis of intellectual capital reporting on corporate financial performance. We then review the literature with regard to models on intellectual capital nexus and on empirical studies. We broaden the discussion by emphasizing social and legal aspects. Section four introduces the theoretical model following endogenous growth theory and the estimation empirical results and discussions. Section 5 wraps it up with concluding remark and recommendations.

**Theoretical framework and Hypothesis Development**

It is very imperative to anchor the theory of intellectual capital reporting and corporate financial performance within the framework of certain theory's' that have been propounded to suit their essence. This analysis anchored on base line Human capital based theory. Strikingly, this human based theory is a framework that examines the relationship between education, economic growth, and social well-being. It is an extension of the capital concept and posits that expenditures on education, job training, and health are capital investments that will yield economic and social returns at the individual and societal levels. Education and training are assumed to lead to greater productivity, which is ultimately translated into economic returns such as higher wages and increased productivity. Early applications of HCT focused primarily on the relationship between amounts of education and economic/social returns, but recent developments in the literature suggest that the quality of education (e.g., how educational time is

spent) and when educational investments are made (e.g., early childhood vs. secondary education) are critical in the process of human capital formation. Human capital itself is a composite of an individual or workforce's knowledge, skills, and life experience, and higher levels of human capital are expected to yield increased wages and productivity, benefitting individuals and corporations alike.

The theory of human capital was proposed by Schultz (1961) and developed by the Nobel prize-winning economist Gary S. Becker in his seminal work on the economics of employer-provided training (1962, 1964). Human capital theory advocates that education or training imparts useful knowledge and skills to workers which in turn increase their productivity and incomes (Becker, 1964). Becker distinguishes between specific human capital and general human capital. Specific human capital includes expertise acquired through education and training which is specific to a particular firm (firm-specific or context-specific skills). General human capital (general skills), on the other hand, is knowledge gained through education and training which is valuable across board (e.g., reading and writing). Becker views human capital as similar to 'physical means of production'. E.g., factories and machines: one can invest in human capital (via education, training, medical treatment) and one's outputs depend partly on the rate of return on the human capital one owns. Thus, human capital is a means of production, into which additional investment yields additional output. A number of authors have criticized the human capital theory for being too simplistic in its analysis of employee productivity and have argued that education alone cannot lead to organizational productivity but must be complemented by other variables. Levin and Kelley (1994) have pointed out that economists and other social scientists have overestimated the payoffs from increased education and ignored complimentary inputs such as, training, contract terms, and management practices which must exist for education to improve productivity. According to Thurow (1975), productivity is largely characteristic of jobs rather than of workers, employers use education credentials to select workers because better-educated workers can be trained for specific jobs more quickly and at a lower cost than their less-educated peers. Spence (1973) also posits that education may simply be a market signal of the potential productivity of a worker since there is hardly any other way for firms to determine the productive attributes of a worker. Notwithstanding these criticisms, 'Becker's human capital theory has been resilient and still remains the principal theoretical construct that is used for understanding human capital investment, both from the perspective of the individual and the firm' (Bassi & McMurrer, 2006). Empirical research supports the premise that participation in education and training is related to positive and significant wage effects-though not perfectly. It is believed that schooling enhances worker productivity (Bowles & Gintis, 1975); HCT provides some support for rising wages with employee experience and differential wages across occupations. The researcher agreed that HCT is essentially applicable to this work since HC itself is a major construct of IC and an anchor for productive activities for manufacturing firms.

### **Intellectual Capital Reporting (ICR)**

There is, considerable support within the accounting literature for the analysis of company performance using annual report, stating that statutory regulations require these reports to be produced on a regular basis, and they therefore provide a consistent historical of the company.

Hines (1988) argues that annual reports are probably the most important documents for constructing a company's social image. Tilt (1994) supports this view, suggesting that companies can symbolically demonstrate values and views to the relevant public through the annual report. Campbell (2000) provides two further reasons to support the use of annual reports. Firstly, annual reports are the most widely distributed of all public produced documents of a company, and, secondly, management has complete editorial control of the discretionary disclosure of information in the annual report. Tay and Parker (1990) argue that actual reporting practices may be assessed more accurately from annual reports.

Sveiby (1997) supports this view by arguing that annual financial statements will always remain the centerpiece of corporate communication, and that their historical and symbolic values are unrivalled, despite the existence of other methods of conveying company data. The question arises of how traditional annual reports relate to the larger measurement of intellectual capital. Annual reports offer the best feedback for establishing whether or not intellectual capital is performing. If a certain intellectual capital index or indicator, such as customer satisfaction or employee morale, never makes itself felt in the income statement or balance sheet, then it actually measures nothing of value. As intellectual capital develops and its measures and forms become standardized, it will be the financial test that will play a crucial role in establishing those standards. Much as intellectual capital is considered a major contributor in the value-creating processes of the firm (Beattie & Thomson, 2007), the value involved with these intangible assets are either immediately expensed in the financial statements or arbitrarily amortized, and therefore are not adequately reflected in the financial statements. For example, Generally Accepted Accounting Practice (GAAP) attempts to measure and record intangible assets.

The International Accounting Standard (IAS 38: Intangible Assets) defines an intangible asset “as an identifiable non-monetary asset without physical substance, it being probable that future economic benefits attributable to this asset would flow to the entity and its cost could be measured reliably. Recalling that as already discussed, intellectual capital consist of knowledge, IAS 38 states that knowledge may give rise to future economic benefits”. The problem arises whether an entity controls those economic benefits (a key element in the definition of an asset). According to IAS 38, an entity only controls those benefits if the knowledge is protected by legal rights such as copyright or restraint of trade agreements or by a legal duty on employee to maintain confidentiality. IAS 38 states that an entity may have a team of skilled workers and be liable for identifying incremental staff skills leading to future economic benefits from training. However, the entity usually has insufficient control over the expected future economic benefits arising from a team of skilled staff and from training for these items to meet the definition of an intangible asset. Paragraph 16 states that “an entity may have a portfolio of customers or a market share. In the absence of legal rights to protect or in other ways to control the relationships with customers or the loyalty of the customer to the entity, then the entity usually has insufficient control over the expected economic benefits from customer relationship and customer loyalty”.

In the light of the evidence on the growing gap between market and book values of firms, it has been argued that the traditional financial reporting model has become of limited relevance to investors because it fails to reflect information about a wide range of value-creating intangible assets (Francis & Schipper, 1999; Lev & Zarowin, 1999; Baskey et al, 2003). The Jenkins Report (AICPA, 1994) in accepting this fact suggested that....*a large part of the immediate problem....is the limited usefulness of today’s financial statements. They do not, for example, reflect information-age assets, such as information capacity for innovation, and human resources. As a consequence, there have been a declining proportion of the information inputs to investors’ decision making....* As an example, the ‘new’ intangibles such as employee competencies, customer relationships and computer and administrative systems are not recognized in the traditional financial reporting model. Although regulatory reporting requirements require traditional intangibles such as brand equity, patents and trademarks to be incorporated in the financial accounts, they are only recognized if they meet some stringent criteria (Holland, 2003; Beattie & Thomson, 2004). Bukh (2003) argues that the traditional reporting model is not able to reflect investments in intangible assets and that this failure of reflection has given rise to increasing information asymmetry between firms and users (Rylander, Jacobsen, & Roos, 2000; Barth et., 2001; Holland, 2003) which has increased opportunities for moral hazard, adverse selection and other opportunistic behavior by managers (Aboody & Lev, 2000; Holland, 2006).

Consequently, this has caused concerns within the capital market on the ability and relevance of the accounting number reported in the financial reports for making economic decisions (Barth et al., 2001). Eccles & Mavrinac (1995) and Lev (2001) contend that reporting of investments in intellectual capital in the firm is an important way of bridging this information asymmetry gap between managers like physical assets (Bontis et al., 1999; Mohiuddin, Najibullah, & Shahid, 2006), which implies that knowledge and information become even more valuable to companies than before. Having a sound knowledge base in the corporation means that in the future years, the company can start leveraging that base to create even more knowledge, thereby increasing its advantage on the competitors (Arthur, 1996). The fact that investors and financial markets attach values to the skills and expertise of CEOs and other top management (Bontis, 2001) can be understood by observing stock prices reacting to change in management. If intellectual capital did not exist in organizations then stock process would not have reacted to actions such as changes in managements, an element of human capital not recognized in financial statements as assets (Bontis, 2001). This fact questions the reliability and adequacy of accounting mechanisms that companies use, developed a few centuries ago to help merchants in the feudal era, to make the key success factors of the information age visible (Mohiuddin et al., 2006). Unfortunately, being invisible and intangible, a measurement value of knowledge cannot be captured very well by any of the traditional measures-accounting or otherwise, that corporations master in their everyday operations (Chen et al., 2005). Intellectual capital can be an objective proxy for the value of corporate knowledge (Hussain, Chakraborty, & Rahman, 2010; Mohiuddin et al., 2006). Companies therefore require a reliable, accurate, and adequate measure of corporate performance which objectively reflects the intrinsic components of intellectual capital and sufficiently demonstrates its true impact on company value at the market to narrow the gap between book and market values,

#### **Webometric analysis of intellectual capital reporting and corporate financial performance in Nigeria.**

Corporate performance is a composite assessment of how well an organization executes on its most important parameters, typically financial, market and shareholder performance. Business performance is defined as measurable result of the level of attainment of organizations goals or measurable result of the organization’s management of its aspects (ISO 1999), or mechanism for improving the likelihood of the organization successfully implementing strategy. Business performance evaluation is the process to help management decisions regarding an organization’s

performance by selecting indicators, collecting and analyzing data, assessing information against performance criteria, reporting and communicating and periodically reviewing and improving the process (Coelho, YIvisaker & Turkstra, 2005).

Financial statements, prepared by following commonly accepted accounting principles, have rarely been agreed upon to be a sufficient measure of corporate performance to assist in objective evaluation of a firm in the market, as evident by the growing gap between market and book values of a firm (AI-Ali, 2003; Hussain et al., 2010; Lev & Daum, 2004; Lev, 2001; Lev & Radhakrishnan, 2003; Lev & Zaowin 1999). This apparent deficiency of traditional financial accounting methods has induced many researchers to carry out investigations on the role of intellectual capital, an element not fairly recognized in the financial statements, in identifying the relationship between share price on the stock market and the book value extracted from the financial statements (Cezair, 2008; Hussain et al., 2010; Lev, 2001). Intellectual capital plays a significant role in the modern approach to value creation and hence the management of intellectual capital has evolved as the core of enterprise operation in the present knowledge era (Gu & Lev, 2001; Lee & Guthrie, 2010). Although a firm's market and book values have hardly ever been exactly the same, the gap between market and book values in most countries have been increasing at an alarming rate over the past few years (Lev, 2001). This increasing gap has drawn wide attention for researchers to explore any invisible value unattended in the financial statements (Lev & Radhakrihnan, 2003; Lev, 2001; Lev & Zaowin, 1999). Recent studies suggest that knowledge and information are physical assets (Bontis, Dragonetti, Jacobsen, and Roos, (1999); Mohiuddin et al., 2006), which implies that knowledge and information become even more valuable to companies than before. Having a sound knowledge base in the corporation means that in the future years, the company can start leveraging that base to create even more knowledge, thereby increasing its advantage on the competitors (Arthur, 1996). Corporate performance analysis is a subset of business analytics/business intelligence that is concerned with the "health" of the organization, which has traditionally been measured in terms of financial performance. However, in recent years the concept of corporate health has become broader.

Like the concept of business sustainability, corporate health is now considered to involve not only financial considerations but also other factors (that is non-financial performance) including social responsibility and reputation, innovation, employee morale and productivity. As such, performance is no longer measured only on key performance indicators (KPI) such as revenue, return on investment (ROI), overhead and operational costs. Since it takes the aggregate of all these factors to sufficiently assess the health of a business concern, and since the image of manufacturing firms are boosted more by the "intangibles", it will be inadequate to use only financial performance to measure the growth of an organization. This is why this research is measuring corporate performance of manufacturing firms in Nigeria. The need for performance measurement derives from the fact that if organizations cannot measure performance, they cannot manage their business (Kaplan & Norton, 1996); and if organizations are to survive and prosper in information age competition, they must use measurement and management systems derived from their strategies and capabilities (O'Reilly, Wathey, Gelber, 2000).

Empirical studies that have investigated the relationship between intellectual capital and financial performance are immensely sparse, compared with these that seek to establish the reverse relationship. Chen, Lin & Chang (2006) in Taiwan with 159 valid questionnaires received in Taiwan and maintained that the three types of intellectual capital. i.e., human capital, structural capital and relational capital had a significantly positive relationship with new product development performance. Moreover their results also indicated that the higher the growth rate of an industry, the stronger were the positive relationships between three types of intellectual capital and new product development performance. Moreover, the relational capital was the greatest among these three types of intellectual capital in Taiwanese manufacturing companies. Human capital was the next and structural capital was the least. The results showed that human capital and structural capital of Taiwan's SMEs was obviously less than those of large enterprises. Cahill, Sidhu & Kansal (2013) in Australia conducted a study and stated that the value creation capability of financial sector was highly influenced by human capital. About two thirds of the sample companies had very low levels of intellectual capital efficiency. The performance of various components of VAIC and overall VAIC were different across all subsectors in the financial sector. Investment companies showed high value VAIC due to higher level of human capital efficiencies whereas the insurance companies reported focus on physical capital rather than human and structural capital leading to lower VAIC. Chidiebere (2013) in Nigeria investigated the relationship between intellectual capital and financial performance. The results showed that HCE has a negative relationship with Growth in Revenue (GR) which implies that increases in the values of HCE will result in a decrease in the values of Growth in Revenue (GR) of banks studied. Other empirical studies include: Nazar & Herremos (2007), Gialiani & Branstran (2011). Table 1 presents a webometric with a cocktail of evidence about the connection between financial performance and intellectual capital reporting. Even though the results are mixed, the study target structural capital and revenue growth, could be influenced by financial performance. This re-echoes the dominant role performance could play in any sector.

**Table 1: Webometric Analysis of Intellectual Capital Reporting**

"S/N	Author's/Year	Title of Research	Journal, Vol & Page's
001	Ambrosine & Bowman, C. (2001)	Tacit knowledge: some suggestions for operationalisation	Journal of management sciences. 38(6),811-829
002	Zouty, I. (2000)	Interpersonal and interaction influences on informal resources exchanges between RED researchers across organizational boundaries	Academy of management Journal. 43(1), 50-51
003	Chillemi, O. & Gui, B. (2001)	Team human capital and worker mobility	Journal of Labour Economics. 15(4),567-585
004	Rastosi, P.N (2002)	Knowledge management and intellectual capital as a paradigm of value creation.	Human systems management 21(3),229-240
005	Robinson .J. &; Schmid, A.A., & Siles, M.E (2002)	Is social capital really capital?	Review of social economy Lx(1),1-21.
006	Skailch, Y. M (2004)	Measuring and reporting of intellectual capital performance analysis.	The journal of American Academy of Business. 4(4), 439-448
007	Tallman, S., Jenkins, M., Henry, N & Pinch, S. (2004)	knowledge, cluster, and competitive advantages	Academy of management review 29(2),258-271
008	Teachman, J.D., Paasch, K. & Carver, K. (1997)	Social capital and the generation human capital.	Social forces 75(4), 1343-1359
009	Canibano, A., Garcia – Ayaso, M. & Sanchez, P. (2000)	Accounting for intangibles: A literature review.	Journal of Accounting Literature. 19(2),102-130
010	Cameron, J.C., Gelbach, J.B & Miller, D.L (2011)	Robust inference with <b>multiway</b> clustering.	Journal of Business & Economic statistics. 29(2),238-249
011	Chen, M.C. Cheng. S. L. & Hwarg, Y. (2005)	An empirical investigation of the relationship between, intellectual capital and firms' market value and financial performance.	Journal of intellectual capital 6(2),159-176.
012	Chu, S.K., Chan, K.H., <b>Yu- K.Y., Yu, K.Y., N.G. H.T.</b> (2011)	An empirical study of the impact of intellectual capital on business performance.	Journal of information and knowledge management 10(1),11-21
013	Firer, S. & Stainbank, L. (2003)	Testing the relationship between intellectual capital and a company's performance: Evidence from south Africa	<b>Meditori</b> Accounting Research,11(1),25-44
014	Eckstein, C. (2004)	The measurement and recognition of intangible assets. Then and now	Accounting form 28(2),139-158.
015	Flamholz, E. (2005)	Conceptualising and measuring the economic value of human capital of the third kind: Cooperate culture.	The journal of Human Research Costing and Accounting. 9(2),39-93.
016	Firer, S. & Williams, S. M. (2003)	Intellectual capital and traditional measures of corporate performance.	Journal of Intellectual Capital 4(3),348-360
017	Giuliani, N. & Branrstrain, S. (2016)	defining goodwill: A practice perspective	Journal of Financial Reporting and Accounting 9(2),161-175
018	Muhammad, N. M.N. & Ismail, M.K. A (2009)	Intellectual capital efficiency and firms' performance: Study on Malaysian financial sector.	International Journal of Economics and Finance. 1(2),206-212.
019	Nazari. J.A., & Herreman, I.M. (2007)	Extended VAK model: Measuring intellectual capital components.	Journal of intellectual capital 8(4),595-609
020	Williams, S.M. (2001)	Is intellectual capital performance and disclosure practices related?	Journal of intellectual capital. 2(3),192-203
021	Tseng, C. Y., James, GN, Y.L. (2005)	Intellectual capital and corporate value in an emerging economy. Empirical study of Taiwanese manufacturers.	R&D Management, 32(2),187-201
022	Wall, A. (2005)	The measurement and management of intellectual capital in the public sector. Taking the lead or waiting for direction?	The international journal of Human Resource Management 20(3),562-577

023	Ruta, C.D. (2009)	HR <b>partial</b> alignment for the creation and development of intellectual capital.	African Journal of Business Management 5(1),88-95.
024	Ahangar, R.G (2011)	the relationship between intellectual capitals and financial performance: An empirical investigation in an Iranian company.	International Journal of Science and Research (IJSR) 2(4),108-116.
025	Alghifari, S. Triharjono, S. & Juhaeni, Y. (2013)	Effect of ROA against Tobin's q: Studios in food and beverage company in Indonesia stock Exchange Years 2007-2011	International journal of financial research, 3(2),10-23.
026	Beaker, G.S. (1996)	Investment in Human capital. A study of selected companies in Nigeria.	A theoretical analysis. Journal of political economy, 5(6),9-49
027	Becker, G.S. (1996).	Investment in Human capital.	
028	Bell, B. & Kozlowski, S. (2008)	Active learning: Effects of core training design elements on self-regulatory <b>procedures</b> learning, and Adoptability.	The Journal of Applied Psychology, 93(2),296-131.
029	Seiby, K.E. (2007)	Methods for measuring intangible assts.	Journal of intellectual capital 3(1),125-167
030	Syeiby, K.E (1997)	The intangible assets <b>monitor</b> .	Journal of Human resource costing & accounting 2(1),34-40
031	Saudah, S., Mike, T. & Richard, P. (2005)	The implications of intellectual capital on performance measurement and corporate performance.	Journal of intellectual capital 4(1),225-267
032	Sangaolu, W.A., Onifade, H.O. & Ajulo, O.B. (2017)	Determinants of dividend policy in Nigerian manufacturing firms.	Research Journal of finance and accounting, 8(6),12-15.
033	Saint – Onge, H. (1999).	Tacit knowledge: the key to the strategic alignment of intellectual capital.	Strategic leadership journal, 24(2),10-14.
034	Ruta, C.D. (2009)	HR Portal alignment for the creation and development of intellectual capital	International Journal of Human Resource Management. 20(3), 562-577
035	Rastogi, I. (2003)	Measuring your company's intellectual performance.	Long Range Planning 30(3),413-426.
036	Ranjith, B.A.	The impact of intellectual on investors capital gain on shares: An empirical investigation in Tai Banking and Insurance sector.	Journal of Internet Banking. 22(4),47-63.
037	Palic, A. (2004)	Intellectual capital – Does it create or destroy value? Measuring Business Excellence.	Journal of intellectual management 8(1),62-68.
038	Pulic, A. Zomemann (1999)	The physical and intellectual capital of Austrian Bank	International journal of technology management 20(4),501-716
040	Bontir, N (1990)		
041	Yang, C.C. & Lin, C.Y.Y. (2009)	Does intellectual capital mediate the relationship between HRM and organizational performance? Perspective of health care industry in Taiwan.	International Journal of Human Resource Management. 20(9), 1965-1984
042	Wright, P.M., Dunford, B.B. & Snell, S.A. (2001)	Human resources and the resource based view of the firm.	Journal of Management. 27(6),701-721.
043	Wright, P.M. & McMahan, G.C. (2011)	Exploring human capital putting back into strategic human resources management.	Human Resource Management Journal, 21(2),93-104
044	Williams, M. (2001)	Is intellectual capital performance and disclosure practice related.	Journal of intellectual capital. 2(3),192-205.
045	Wernerfalt, B. (1984)	A resource – based view of the firm.	Strategic Management Journal, 5(2),171-180
046	Wallace, R.S.O (1988)	Corporate financial reporting in Nigeria.	Accounting and Business Research 13(72), 352-362.
047	Ulum, I., Ghozali, I., & Purwanto, A. (2014)	Intellectual capital performance of Indonesian banking sector. A modified VAIC (M – VAIC) perspective.	Asian Journal of Finance and Accounting. 6(6),103-123.
048	Temple, M., Ofurum, C.O & Solomon, is (2016)	Audit committee characteristics and quality of financial reporting in quoted Nigerian banks.	International Journal of Advanced Research/Social & Management Science 2(1),32-43.
049	Sudibya, D.C. N.A.	Pengaruh modal. Intellectual terhadap Nilai Perasah	Seminar Nasional dan.journal of

	& Restnti, M.M. D (2014)	degon Kcaangan.sebagai interening	management 3(1),37-43
050	Pulic, A. (1998)	Measuring the performance of intellectual potential in knowledge economy.	International Journal of Technology Management 20(2), 245-354.
051	Petty, R. & Guthrie, J. (2000)	Intellectual capital literature review: measurement, reporting and management.	Journal of intellectual capital. 1(2), 151-176.
052	Pattpm. J.R. (2009)	Metrics for knowledge – based project organizations.	Academic Management Journal. 72(1),33-43
053	Ofoegbu, G. & Okoye, E. (2006)	The relevance of accounting of auditing standards in corporate financial reporting in Nigeria: Emphasis on compliance.	The Nigerian Accountant 39(4),45-53
054	Nazari, A. & Herremans, I.N (2007)	Extended VALC Model: Measuring intellectual capital components.	Journal of Intellectual Capital 8(4),595-609.
055	Mouritsen, J. (1998)	Driving Growth: Economic value added versus. Intellectual capital.	Journal of management accounting research, 12(5),123-152.
056	Ming, C.C., Shu, J.C. & Yuhachang, H. (2005)	An empirical investigation of relationship between intellectual capital and firms market value and financial performance.	Journal of Intellectual capital, 6(2),159-570.
057	Micah, L.C., Ofurum, C.O & Ihendinihu, J.U. (2012)	Firms financial performance and human resources accounting disclosure in Nigeria.	International Journal of Business and Management, 7(14),67-75.
058	Makki, M. & Lodhi, S.A. (2009)	Impact of Intellectual capital on Return on Investment in Pakistani Corporate sector.	Australian Journal of Basic applied sciences. 3(3),2959-2967.
075	Kim, D. Kumar, V. & Kumar, U (2009)	A framework of intellectual capital management based on ----- quality management system.	Journal of knowledge and process. Management. 16(6), 162-173.
076	Kamath, G.B (2010)	The intellectual capital performance of banking sector in Pakistan.	Pakistan Journal Communications and Social Sciences, 4(1),84-99.
077	Goh, P.C. (2006)	Intellectual capital performance of commercial banks in Malaysia.	Journal of intellectual capital. 6(3),385-396
080	Flavio, I.R (2007)	Intellectual capital and the creation of values in the Brazilian companies	Journal of Intellectual Capital. 8(1),73-102.
082	Firer, S. & William, S.M. (2004)	Intellectual capital on traditional measures of corporate finance.	Journal of Intellectual Capital. 4(3),348-360.
083	Ekwe,M.C. (2006)	Relationship between intellectual capital and financial performance in the Nigeria banking sector.	Journal of Intellectual Capital. 1(1),125-250.
084	Edvinsson, L. (1997).	Developing intellectual capital in Scandia. Long range planning.	Journal of Intellectual Capital. 30(3),320-331.
085	Clarke, M., Seng, D. & Rosalived, H. W.	Intellectual capital and firm performance in Australia.	Journal of Intellectual Capital. 12(1),505-530
085	Chen, M.C., Chang, S.J. & Hwang, Y.(2005)	An empirical investigation of the relationship between intellectual capital and firm’s market value and financial performance.	Journal of Intellectual Capital. 6(2),159-176.
086	Campisi, D. & Costa, R. (2008).	A DEA-Based method to enhance intellectual capital management.	Journal Knowledge and Process Management. 15(3),170-183
087	Brumment, R.L., Flemholtz, E.G. & Pyle, W.C. (1968).	human resources management: A challenge for accountants.	The Accounting Review, 2(3),217-224.
087	Brenna, M. (1999)	Empirical analysis of the intellectual potential of value systems in Australia according to the VAIC.	Journal of Intellectual Capital. 3(2),16-43.
088	American Accounting Association Committee. (1993)	Report on human resource accounting.	The Accounting Review, 4(2),48-70
089	Becker, G.S. (1996)	Investment in human capital. A theoretical analysis.	Journal of Political Economy, 3(6),9-48.
090	Bontis, N. (1998)	Intellectual capital: An exploratory study that develops measure and models.	Management Decision, 36(2),63-76.

091	Bovneman, M. (1999)	Empirical analysis of the intellectual potential of vale systems in Australia according to the VAIC..	Journal of Intellectual Capital, 3(5),16-48
092	Brenna, N. & Connell, C.(2011)	Intellectual capital: current and policy implications.	Journal of Intellectual Capital, 1(3),156-187.
093	Aboody, D. & Lev. B. (2000)	Information asymmetry, R&D and insider gains,	Journal of finance, 55(6),2747-2766
094	Adams, J. S. (1963)	Towards an understanding of inequity	<i>Journal of Abnormal and Social Psychology</i> , 67, 422-436.
095	Ahmad, S., &Mushraf, A. M. (2011).	The Relationship between Intellectual Capital and Business Performance.	<i>International Conference on Management and Artificial Intelligence</i> .6:104-109.
096	Batemen, T. S. &Strasser, S. (1984).	A longitudinal analysis of the antecedents of organizational commitment.	<i>Academy of Management Journal</i> , 27(1), 95-112.
097	Barth, M.E., Kasznik, R., McNichols, M., (2001).	Analyst coverage and intangible assets.	<i>Journal of Accounting Research</i> 39 (1), 1-34.
098	Barney, J.B., (2001).	Is the Resource-Based Theory a Useful Perspective for Strategic Management Research?	<i>Academy of Management Review</i> ; 26 (1), 41–56.
099	Barney, J. B. & Hansen, M. H. (1994).	Trustworthiness as a Source of Competitive Advantage.	<i>Strategic Management Journal</i> , 15 (S1): 175-190.
100	Becker, T.E., Billings, R.S., Eveleth, D.M. & Gilbert, N.L. (1996).	‘Foci and Bases of employee commitment: implications for job performance’	<i>Academy of Management Journal</i> , 39, 464–482.
101	Belasco, J.A. &Sayer, R.C. (1994).	Why empowerment doesn’t empower. The bankruptcy of current paradigms.	<i>Business horizons</i> , 37(2), 29-41
102	Bontis, Nick. (1996a).	“There’s a Price on your Head: Managing Intellectual Capital Strategically”,	Business Quarterly, Summer, 60(4), 40-47
103	Bontis, N. (2010).	Assessing knowledge assets: a review of the models used to measure intellectual capital.	<i>International Journal of Management Reviews</i> , 1-24
104	Bowles, S. & Gintis, H. (1975),.	The Problem with Human Capital Theory – A Marxian Critique	<i>American Economic Review</i> , 65(2), 74-82
105	Bozzolan, S., Favotto, F., & Ricceri, F. (2003).	Italian annual intellectual capital disclosure.	<i>Journal of Intellectual Capital</i> , 4(4), 543–558.
106	Brennan, N.,& Connell, B. (2000)	Intellectual capital: Current issues and policy implications.	<i>Journal of Intellectual Capital</i> , 1(3), 206–240.
107	Bruggen, A., Vergauwen, P., & Dao, M. (2009).	Determinants of intellectual capital disclosure: evidence from Australia.	<i>Management Decision</i> , 47(2), 233-245.
108	Bukh P N D, H T Larsen & J Mouritsen (2001).	Constructing intellectual capital statements’,	<i>Scandinavian Journal of Management</i> , 17(1), 78-108.
109	Cabrita, M. & Bontis, N. (2008).	“Intellectual capital and business performance in the Portuguese banking industry”	<i>International Journal of Technology Management</i> , 43(1-3), 212-37.
110	Carrell, M.R., & Dittrich, J.E. (1978).	Equity theory: the recent literature, methodological considerations, and new directions.	<i>The Academy of Management Review</i> .3(2), 202-210.
111	Cezair, J. (2008).	Intellectual Capital: Hiding in plain view.	<i>Journal of performance management</i> , 21:29-39
112	Chan, K. H. (2009a).	Impact of intellectual capital on organizational performance: An empirical study of companies in the Hang Seng Index (Part 1).	The Learning Organization, 16(1), 4-21.
113	Chareonsuk, C., &Chansa-ngavej,	Intangible asset management framework for long-term financial performance.	<i>Industrial Management &amp; Data Systems</i> , 108(6), 812 - 828.

	C.(2008).		
114	Chatzkel, J. (2002) 'A conversation with Göranroos',	'A conversation with Göranroos',	<i>Journal of Intellectual Capital</i> , 3: 96–117.
115	Chauhan, N. & Bontis, N. (2004).	'Organizational learning via groupware: a path to discovery or disaster?',	<i>International Journal Technology Management</i> ., 27:591–610.
116	Chen, M. C., Cheng, S. J., & Hwang, Y. (2005).	An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance.	<i>Journal of Intellectual Capital</i> , 6(2), 159-176.
117	Cohen, S., & Kaimenakis, N. (2007).	Intellectual capital and corporate performance in knowledge-intensive SMEs.	<i>The Learning Organization</i> , 14(3), 241-262.
118	Daley, J. (2001).	The Intangible Economy and Australia,	<i>Australian Journal of Management</i> , 26 (2): 4-19.
119	Diamond, D.W, Verrecchia, R.E (1991).	Disclosure, Liquidity, and the Cost of Capital.	<i>Journal of Finance</i> 46: 1325-1359.
120	Dodgson, M. (1992).	'The strategic management of R&D collaboration'	<i>Technology Analysis and Strategic Management</i> , 4(3), 227–44.
121	Eccles, R.G. & Mavrinac, S.C. (1995).	Improving the corporate disclosure process.	<i>Sloan Management Review</i> , 36 (4): 11-25.
123	Edvinsson, L. (1997).	Developing Intellectual Capital in Scandia.	<i>Long Range Planning</i> , 30(3), 320 -331.
124	Edvinsson, L. & Malone, M.(1997).	Intellectual capital: Realising your company's true value by finding its hidden brain power,	<i>Journal of Human Resources Accounting</i> , 4(1), 21-33.
125	Francis, J., & Schipper, K. (1999).	Have Financial Statements Lost Their Relevance?	<i>Journal of Accounting Research</i> , 37(2), 319-352.
126	Gietzmann, M., Ireland, J., (2005).	Cost of capital, strategic disclosures and accounting choice.	<i>Journal of Business Finance &amp; Accounting</i> 32 (3 & 4): 599-634.
127	Gibbert, M. Leibold, M. & Voelpel, S. (2001).	'Rejuvenating corporate intellectual capital by co-opting customer competence',	<i>Journal of Intellectual Capital</i> , 2:109–126.
128	Gray, R.H. (2006).	Social, environmental and sustainability reporting and organizational value creation? Whose value? Whose creation?	<i>Accounting, Auditing and Accountability Journal</i> , 19(6).
129	Gulati, R. (1995).	'Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances'.	<i>Academy of Management Journal</i> , 38:85–112.
130	Guthrie, J.; Petty, R. & Ricceri, F. (2006).	The Voluntary Reporting of Intellectual Capital: Comparing Evidence from Hong Kong and Australia,	<i>Journal of Intellectual Capital</i> , 7 (2): 254-271.
131	Guthrie, J., Cuganesan, S., Ward, L. (2007).	<i>Extended performance reporting: Evaluating corporate social responsibility and intellectual capital management.</i>	<i>Issues in Social and Environmental Accounting</i> , 1(1), 1–25.
132	Halim, S. (2010).	Statistical Analysis on the Intellectual Capital Statement.	<i>Journal of Intellectual Capital</i> , 11 (1), 61-73.
133	Hall, R.(1993).	'A Framework Linking Intangible Resources and Capabilities to Sustainable Competitive Advantage',	<i>Strategic Management Journal</i> 14:607–618.
134	Hamehkhani, S., Boochani, K., & Barani, M. T. (2014).	Analyzing the effects of intellectual capital on market value and financial performance of companies in the steel industry.	<i>Journal of Applied Environmental and Biological Sciences</i> , 4(1), 60-68.
135	Hamel, G. (1991).	'Competition for competence and inter-partner learning within International strategic alliances'.	<i>Strategic Management Journal</i> , 12: 83–103.
136	Hedlund, G. (1994).	'A model of knowledge management in the N-form corporation'.	<i>Strategic Management Journal</i> , 15:73–90
137	Henderson, R. & Cockburn, I. (1994).	Measuring competence? Exploring firm effects in pharmaceutical research.	<i>Strategic Management Research</i> , 15:63-84

138	Hines, R. D. (1988).	"Financial accounting: In communicating reality, we construct reality",	<i>Accounting, Organizations &amp; Society, 13</i> (3), 251-261
139	Holland, J. (2003).	Intellectual capital and the capital market–organisation and competence.	<i>Accounting, Auditing &amp; Accountability Journal, 16</i> (1), 39-48.
140	Huseman, R.C., Hatfield, J.D. & Miles, E.W. (1987).	A new perspective on equity theory: the equity sensitivity construct.	<i>The Academy of Management Review. 12</i> (2), 222-234.
141	Hussi, T. (2004).	Reconfiguring knowledge management – Combining Intellectual intangible assets and knowledge creation.	<i>Journal of Knowledge Management, 8</i> (2), 36–52.
142	Ibikunle, J., Oba, V. C., Nwufu, C. (2013).	Determinants of intellectual capital disclosures in Nigeria.	<i>Ekonomika, 9</i> (6), 195–206.
143	Ihyaul Ulum, I., Ghozali, I. & Purwanto, A. (2014).	Intellectual Capital Performance of Indonesian Banking Sector: A Modified VAIC (M-VAIC) Perspective.	<i>Asian Journal of Finance &amp; Accounting, ISSN 1946-052X, 6</i> (2).
144	Joshi, M., Cahill, D., & Sidhu, J. (2010).	Intellectual capital performance in the banking sector: An assessment of Australian owned banks.	<i>Journal of Human Resource Costing &amp; Accounting, 14</i> (2), 151-170.
145	Kaplan, R. S. & Norton, D. P. (1992).	'The balanced scorecard: measures that drive performance',	<i>Harvard Business Review, 70</i> (1), 71-79.
146	Khalique, M., Shaari, J. A. N., Isa, A. H. M & Ageel, A. (2011).	Relationship of intellectual capital with the organizational performance of pharmaceutical companies in Pakistan.	<i>Australian Journal of Basic and Applied Sciences, 5</i> (12), 1964-1969.
147	Kirzner, I. M. (2001).	Entrepreneurial discovery and the competitive market approach: An Austrian approach.	<i>Journal of Economic Literature, 35</i> :60– 85.
148	Kodama, F. (1992).	"Technology Fusion and the New R&D,"	<i>Harvard Business Review, 70</i> (3), 70-78.
149	Kohli, A.K. & Jaworski, B.J. (1990).	'Market orientation: the construct, Research propositions and managerial implications',	<i>Journal of Marketing, 54</i> :1–18
150	Kong, E. & Prior, D. (2008).	An intellectual capital perspective of competitive advantage in nonprofit organisations.	<i>International Journal Nonprofit Voluntary Sector Marketing, 13</i> (2), 119-128
151	Kujansivu, P. & Lönnqvist, A. (2007).	How do investments in intellectual capital create profits?	<i>International Journal of Learning and Intellectual Capital, 4</i> (3), 256-275.
152	Lee, L.L., & Guthrie, J., (2010).	Visualizing and measuring intellectual capital in capital markets: a research method.	<i>Journal of Intellectual Capital, 11</i> (1), 4-22
153	Leitner, K.H. & Warden, C. (2004).	Managing and reporting knowledge-based resources and processes in research organizations: specifics, lessons learned and perspectives.	<i>Management Accounting Research, 15</i> :33-51.
154	Leuz, C. & Verrecchia, R. (2000).	The economic consequences of increased disclosure.	<i>Journal of Accounting Research, 38</i> (Supplement): 91-124
155	Lev, B. & Zambon, S. (2003).	Intangibles and intellectual capital: an introduction to a special issue.	<i>European Accounting Review, 12</i> (4), 597-603.
156	Levitt, A. (1998).	The importance of high quality accounting standards.	<i>Accounting Horizons, 12</i> (2), 79-82.
157	Ippman, S.A., Rumelt, D.P. (1982).	Uncertain limitability: an analysis of inter-firm differences in efficiency under competition.	<i>The Bell Journal of Economics, 13</i> (2), 418–438
158	Mavridis, D. G. (2005),	"Intellectual capital performance determinants and globalisation status of Greek listed firms",	<i>Journal of Intellectual Capital, 6</i> (1), 127-140.
159	Mayer, R.C., Davis, J.H. & Schoorman, F.D. (1995)	'An Integrative Model of Organizational Trust'.	<i>Academy of Management Review, 20</i> (3), 709-734.
160	McMullen JS, Shepherd DA. (2006).	Entrepreneurial Action and the Role of Uncertainty in the Theory of the Entrepreneur.	<i>Academy of Management Review</i> 31(1), 132–152
161	Melle, M. (2007).	La responsabilidad social dentro del sector público.	<i>Human Resource Management Review. 1</i> (1), 61-89.

		Meyer, J. P. & Allen, N. J. (2007). A three-component conceptualization of organizational commitment.	
162	Mohiudin, M.; Najibullah, S. & Shahid, A. I. (2006).	An Explanatory Study on Intellectual Performance of the Commercial Banks in Bangladesh.	<i>The Cost and Management</i> , 34 (6), 40-54.
163	Mondal, A. (2015).	Application of Modified VAICTM Model for Measuring Intellectual Capital Performance.	<i>International Journal of Research in Finance and Marketing</i> , 6 (11), 19-30
164	Mouritsen, J. (1998).	“Driving growth: Economic value added versus intellectual capital”.	<i>Management Accounting Research</i> , 9(4), 461-482.
165	Nahapiet, J., & Ghoshal, S. (1998).	Social capital, intellectual capital, and the organizational advantage.	<i>Academy of Management Review</i> , 23(2), 242-266
166	O’Reilly M, Wathey D, Gelber M. (2000).	ISO 14031: effective mechanism to environmental performance evaluation.	<i>Corporate Environmental Strategy</i> 2000;7(3):267-275.
167	Ordóñez de Pablos, P. (2002).	‘Evidence of intellectual capital measurement from Asia, Europe and Middle East’.	<i>Journal of Intellectual Capital</i> , 3:287– 302.
168	Pal, K., & Soriya, S. (2012).	IC performance of Indian pharmaceutical and textile industry.	<i>Journal of Intellectual Capital</i> , 13(1), 120-137.
169	Pena, (2002).	Intellectual capital and business start-up success.	<i>Journal of Intellectual Capital</i> , 3(2), 180-198.
170	Petty, R. & Guthrie, J. (2000).	‘Intellectual capital literature review: measuring, reporting and management’.	<i>Journal of Intellectual Capital</i> , 1: 155–176.
171	Porter, L. W., Steers, R. M., Mowday, R. T. & Boulian, P. V. (1974).	Organizational commitment, job satisfaction and turnover among psychiatric technicians.	<i>Journal of Applied Psychology</i> , 59(5), 603-609.
172	Quinn, J.B., Anderson, P. & Finkelstein, S. (1996).	‘Managing professional intellect: making the most of the best’.	<i>Harvard Business Review</i> , 74: 71–80.
173	Ramírez, Y. (2010).	Intellectual capital models in Spanish public sector.	<i>Journal of Intellectual Capital</i> , 11(2), 248-264.
174	Richardson, A.J., Welker, M., (2001).	Social disclosure, financial disclosure and the cost of equity capital.	<i>Accounting, Organisations and Society</i> 26 (7- 8), 597-616.
175	Roos, G. & Roos, J. (1997).	“Measuring your company’s intellectual performance”.	<i>Journal of Long Range Planning</i> , 30 (3), 413-426.
176	Rousseau, D.M., Sitkin, S.B., Burt, R.S. & Camerer, C. (1998)	‘Introduction to Special topic forum, not so different after all: a cross-discipline view of trust’.	<i>Academy of Management Review</i> , 23:393–404.
177	Rudez, H. N., & Mihalic, T. (2007).	Intellectual capital in the hotel industry: a case study from Slovenia.	<i>Hospitality Management</i> , 26: 188-199.
178	Rylander, A., Jacobsen, K. & Roos, G. (2000).	Towards improved disclosure on intellectual capital, <i>International</i>	<i>Journal of Technology Management</i> , 20 (5-8): 715-741.
179	Saint-Onge, H. (1996).	Tacit knowledge: the key to the strategic alignment of intellectual capital.	<i>Strategy &amp; Leadership</i> , 42, (2), 10-14.
180	Salteh, H. M. Z., Nahandi, Y. B., Koushali, J. A.	Studying the relationship between governmental ownership and intellectual capital performance.	<i>Trends in Social Science</i> , 6(1), 100-108.

	(2013).		
181	Sánchez, P., Elena, S. &Castrillo, R. (2009).	Intellectual capital dynamics in universities: a reporting model.	<i>Journal of Intellectual Capital</i> , 10(2),307-324
182	Sarasvathy, S.D. (2001).	Causation and effectuation: toward a theoretical shift from economic inevitability to entrepreneurial contingency.	<i>The Academy of Management Review</i> , 26 (2), 243–288.
183	Schultz, T.W. (1961).	‘Investment in human capital’.	<i>American Economic Review</i> , 51:S 1–17.
184	Seleim, A., Ashour, A. &Bontis, N. (2004).	“Intellectual capital in Egyptian software firms”, The Learning Organization:	<i>An International Journal</i> , 11(4-5), 332-46.
185	Shiu, H. J. (2006).	The application of the value added intellectual coefficient to measure corporate performance: evidence from technological firms.	<i>International Journal of Management</i> , 23(2), 356-365.
186	Slater, S. & Narver, J. (1995)	‘Market orientation and the learning organisation’.	<i>Journal of Marketing</i> , 59:63–74.
187	Spence, M. (1973).	Job market signaling.	<i>Quarterly Journal of Economics</i> , 87(3), 355-374
188	Stovel, M. & Bontis, N. (2002).	‘Voluntary turnover: knowledge management friend or foe’.	<i>Journal of Intellectual Capital</i> , 3:303–322.
189	Subramaniam, M. &Youndt, M. A. (2005).	The influence of intellectual capital on the types of innovative capabilities.	<i>The Academy of Management Journal</i> , 48(3), 450-463.
190	Taliyang, S. M., Latif, R. A., & Mustafa, N. H. (2011).	The determinants of intellectual capital disclosure among Malaysia listed companies.	<i>International Journal of Management and Marketing Research</i> , 4(3), 25-33.
191	Tay, J.& Parker, R., (1990).	Measuring International Harmonization and Standardization.	<i>Abacus</i> , 26(1), 71-87
192	Teece, D.J. 1988.	Capturing value from technological innovation: Integration, strategic planning, and licensing decisions.	<i>Interfaces</i> , 18(3), 46–61.
193	Ting, I. W. K. & Lean, H. H. (2009).	Intellectual capital performance of financial institutions in Malaysia.	<i>Journal of Intellectual Capital</i> , 10(4),588-599.
194	Tseng, C.-Y.& Goo, Y.-J.J. (2005).	“Intellectual capital and corporate value in an Emerging economy: empirical study of Taiwanese manufacturers”.	<i>R&amp;D Management</i> , 35 (2), 187-201.
195	Tovstiga, G. & Tulugurova, E. (2007).	Intellectual capital practices and performance in Russian enterprises.	<i>Journal of Intellectual Capital</i> , 8 (4), 695-707, Cross Ref
196	Uadiale, O. M., & Uwuigbe, U. (2011).	Intellectual capital and business performance evidence from Nigeria.	<i>Interdisciplinary Journal of Research in Business</i> , 1(10), 49-56.
197	Ulrich, D. (1998).	‘Intellectual capital = Competence x Commitment’.	<i>Sloan Management Review</i> , 39, 15–26.
198	Onyekwelu, U. L. & Ubesie, M. C. (2016).	Effect of Intellectual Capital on Corporate Valuation of Quoted Pharmaceutical firms in Nigeria.	<i>International Journal of Business and Management</i> , 4(7) 50-59.
199	Wang, J. C. (2008).	Investigating market value and intellectual capital for S&P 500.	<i>Journal of Intellectual Capital</i> , 9(4), 546 -563
200	Wernerfelt, B. (1984).	The resource-based view of the firm.	<i>Strategic Management Journal</i> , 5(2), 171–180.
201	Williams, S. M. (2001).	Is intellectual capital performance and disclosure practices related?	<i>Journal of Intellectual Capital</i> , 2(3), 192–203.
202	Wu, H.Y., Chen, J.K. & Chen, I.S. (2012).	Ways to promote valuable innovation: intellectual capital assessment for higher education system.	<i>Qual Quant</i> ,46(13),77-191
203	Yau, F. S., Chun, L. S., &Balaraman, R. (2009).	Intellectual capital reporting and corporate characteristics of public-listed companies in Malaysia.	<i>Journal of Financial Reporting &amp; Accounting</i> , 7(1), 17-35.
204	Zander, U. &Kogut,	‘Knowledge and the speed of transfer and limitation of	<i>Organization Science</i> , 6, (1) 76–

B. (1995).	organizational abilities: an empirical test’.	92”
------------	---	-----

**Research Question and Hypothesis Development**

While there has been considerable research on the effects of “Intellectual Capital and Financial Performance” there has been relatively little or no systematic study as to the webometric analysis of intellectual capital reporting and corporate financial performance in Nigeria. This empirical study seeks to offer answers to questions about webometric analysis of intellectual capital and corporate financial performance regarding the relevance, benefits, challenges to webometric intellectual capital reporting framework. Specifically, the study seeks to provide answers to the following research question (RQ).

**RQ<sub>1</sub>:** *Can webometric intellectual capital reporting exert any significant effect on corporate financial performance in Nigeria?*

The above “research question” lead to a number of hypothesis, stated in the null form, and related with the one research question (RQ<sub>1</sub>), yields the following hypothesis:

H<sub>01</sub>: Intellectual capital reporting does not exert any significant effect on corporate financial performance in Nigeria.

**RESEARCH METHODS**

This research launched an empirical investigation into the relationship between intellectual capital reporting and corporate performance of quoted manufacturing firms in Nigeria. The study will use quasi experimental design for its analysis. Quasi experimental design as used in the social sciences is an empirical study used to estimate the casual impact of an intervention on its target population (Dinardo 2008). It involves selecting groups, upon which a variable is tested, without any random pre-selection processes; implying that there is no control element being studied as obtainable in the pure sciences. The population of the study includes all manufacturing companies listed on the Nigerian Stock Exchange; covering the period 2011 to 2015.

The study adopted judgmental sampling and the analysis made use of corporate statement of financial position and accounts data of quoted manufacturing companies extracted from annual published accounts of the organization. These reports were obtained from various sources including “

Nigerian Stock Exchange, Registrars of different companies, companies head offices, corporate affairs commission, manufacturing association of Nigeria, Nigeria promotion commission reports and website of the sampled manufacturing companies covering the period from 2011-2015, consistent with previous research (Guh, 2005; Marridis, 2005; Joshi., Sidhu & Kansal, 2013; Nwaiwu & Aliyu, 2018; Ofurum., Onuoha & Nwaekpe, 2018. Secondary data will be deployed for the study. The data will be retrieved from the annual reports and accounts of the sampled manufacturing companies, particularly, particulars from their “Statement of Profit or Loss and other Comprehensive Income, and Statement of Financial Positions” covering the period from 2011 - 2015; sourced from the Nigerian Stock Exchange portal and websites of the sampled manufacturing companies, consistent with previous research (Goh, 2005; Mavridis, 2005; Joshi, Cahill, Sidhu, & Kansal, 2013).

The ex-post facto research design was adopted for this study. This was chosen based on its ability to generate data from documentary records with ease of verification devoid of disputes. The researcher will adopt multiple regressions to enable a time series analysis of the annual reports and accounts of the companies studied. The multiple regression (Ordinary Least Square) will be employed because of its strength in exhibiting a meaningful relationship between two or more variables in consonance with previous studies (Pulic 1998, Chu, Chan, & Wu 2011, 2003, Maditinos, Chatzoudes, Tsairidis, & Theriou, 2011). To achieve this purpose, the following were done: Firstly, a unit test will be carried out to ascertain the level of stationarity of all variables in the model. This will be done to estimate the relationship between variables using time series. To achieve this purpose, the Augmented Dickey – Fuller (ADF) unit root test approach will be adopted because of its wide usage (Maddala 2001).

Secondly, pair wise Granger causality will be used to ascertain if one variable Granger cause the other, and the direction of the causality. The Granger test thus will help to predict the future values of time series using Econometric e-views (e-views) version 8.

Finally, Bivariate and multivariate statistical models will be adopted in ascertaining the correlation and extent of influence of the predictor variable on the criterion variables of the study. The analyses will be conducted using Statistical Package for Social Sciences (SPSS) version 22.

**Model Specification**

In an attempt to ascertain the influence of Intellectual Capital Reporting on the Corporate Performance of quoted manufacturing companies in Nigeria the researcher specified the following econometric model:

**Functional Equation**

$$Y = f(X_1) \dots\dots\dots 1$$

$$DER = f(HCE) \dots\dots\dots 2$$

Where Y represents the criterion variables (DER) and X<sub>1</sub>, represent the predictor variables (HCE).

**Mathematical Equation**

$$DER = \alpha_0 + X_1 \beta_1 \dots\dots\dots 3$$

Therefore,

$$DER = \alpha_0 + \beta_1 HCE \dots\dots\dots 4$$

**Econometric Equation**

$$DER = \alpha_0 + \beta_1 HCE + \dots\dots\dots X_1 \beta_1 + \varepsilon \dots\dots\dots 5$$

Where

CP = Corporate Performance

HCE = Human Capital Efficiency

DER = Debt-to-Equity Ratio

MVAIC= Modified Value Added Intellectual Coefficient

$\alpha_0$  = Constant

$\mu$  = Beta

$\varepsilon$  = Stochastic error term

**ECONOMETRIC RESULTS AND DISCUSSION**

**Data Analyses**

**Descriptive Statistics**

**Table 1: Descriptive Statistics output using SPSS**

**Descriptive Statistics**

	N	Min	Max	Mean	Std. Dev	Skewness		Kurtosis	
	Statistic	Stat.	Stat.	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
HCE	60	1.556	18.791	4.91587	3.928100	2.427	.309	5.471	.608
DER	60	.230	5.270	1.38900	.982533	2.083	.309	6.129	.608
Valid N (listwise)	60								

Table 1 above presents the summary of descriptive statistics for the five (5) variables of the entire panel. Average HCE is ₦4.9b with standard deviation of approximately 3.92b. The maximum HCE recorded is ₦18.79b while the minimum is ₦1.56b. Finally, Average DER is ₦1.39b with standard deviation of approximately ₦0.982b. The maximum DER recorded is ₦5.27b while the minimum is ₦0.230b.

**Stationarity Test**

**Table 2 Augmented Dickey-Fuller Test Results from SPSS**

**Table 2 – Human Capital ADF result**

		t-Statistic
Augmented Dickey-Fuller test statistic		-3.041528
Test critical values:	1% level	-3.571310
	5% level	-2.922449
	10%level	-2.599224

**Table 3 – Debt-to-equity Ratio ADF result**

		t-Statistic
Augmented Dickey-Fuller test statistic		-1.608811
Test critical values:	1% level	-2.606163
	5% level	-1.946654
	10%level	-1.613122

Table 3 shows the result of Stationarity using Augmented Dickey Fuller (ADF) unit root test. The results indicate that the criterion variables: Debt – equity ratio stationed at 3<sup>rd</sup> difference with ADF t – statistic value of -1.608811 with a test critical value of -1.613122 at 10% level. On the other hand, the predictor variables: Human Capital, became stationary at the 1<sup>st</sup>, differences with ADF t-statistic value of -3.041528, with a test critical value of -3.571310 at 1% level; ADF t-statistic value of -2.80786, with a test critical value of -2.923780 at 5% level and ADF t-statistic value of -2.546337, with a test critical value of -2.594027 at 10% level respectively. The result provides empirical evidence of non-stationarity as all the variables in the study gained stationarity at first and third differencing. That is, after first differencing, the means and variances of all the variables in the ADF test became constant over time (stationary).

**Bivariate Analysis**

Appendix 1 indicates that human capital has very strong positive correlation with market share (at .529) and a very strong negative correlation with debt-to-equity ratio (at -.390). In the same vein, structural capital has very strong positive correlation with a very strong negative correlation with debt-to-equity ratio (at -.152) and a strong positive correlation with debt-to-equity ratio (at .015).

S/N	Hypothesis	Tag	Beta	T	Sig	Decision
1	Human Capital,	HCE	-.379	-2.960	.005	
	Significant correlation on firm's					

H<sub>01</sub>: Webometric Human Capital Reporting have no significant correlation on firms Debt-to-Equity ratio in Nigeria.

The model summary has a correlation coefficient 'R' = .394 and R<sup>2</sup> = .155 coefficient of determination. Therefore, the predictor variables used in regression model have described 15.5% of the variations taking place in corporate performance in Nigeria. Also, the Durbin Watson value of 2.031 indicates that there is no problem of autocorrelation among the predictor variables.

The ANOVA in table in appendix 3 is aimed at testing whether the overall regression model is a good fit for the table. The result shows that the predictor variables statistically significantly (F= 3.432; Sig.023) predict the criterion variable. Meaning the regression model is a fit of the data

The coefficients table in appendix 3 reveals a unanimous downhill relationship between the predictor variables and the criterion variables. Human Capital have negative but significant (beta= -.379, t= -2.960 and sig., =.005) effect on Debt/Equity ratio. Also, Structural capital negatively correlate (beta= -.052, t= -.410 and sig., =.684) with Debt/Equity ratio. Finally, Relational capital also indicated a downhill relationship (beta= -.028, t= -.230 and sig., =.819) with Debt/Equity ratio. Therefore the null hypothesis was accepted..

This empirical results is not consistent with the findings of Aboody & Lev (2000), Barney (2001), Robinson., Schmid & Siles (2002), Firer & Stainbank, (2003), Eckstein (2004); Flamholz (2005), Ofuegba & Okoye (2006), Flavio (2007), Cezair (2008), Chau (2009), Bontis (2010), Ichalique., Shaari., Isa & Ageel (2001), Pal & Soviya (2012), Salteh., Nahandi & Koushali (2013), Ihyaul., Ghozali & Parwanto (2014), Mondal (2015), Ginliani & Brainstrain (2016), Bontir (2017); Nwaiwu & Aliyu (2018) who found positive results in their empirical analyses.

Intellectual capital has been designed as a pivot that enhances firms' performance, especially for firms, operating in modern business environment or knowledge intensive sectors such as manufacturing industries in Nigeria (Bontis, 2001). Manufacturing companies, through managerial innovation predominantly create competitive advantage through IC rather than physical capital; resulting in huge investments into knowledge-based resources to achieve and sustain corporate success (Wang, 2008). IC has also been stated to be the explanation of the growing gap between a firm's market and book value. Despite the obvious importance of Intellectual Capital, its elements are neither captured by traditional accounting practices nor recognized in the financial statements based on IAS 38, Intangible Assets (Guthrie & Yongvanich, 2004; Lev, 2001).

This study is therefore aimed at empirically establishing the impact of Intellectual Capital Reporting on the performance of quoted manufacturing companies in Nigeria within the longitudinal period, 2011 to 2015

### CONCLUDING REMARK AND RECOMMENDATIONS

Drawing from the analysis of the data derived from the annual reports of manufacturing companies from 2011 to 2015, it follows that Human Capital have positive and significant effect on Market share of

manufacturing firms in Nigeria. This implies that the inputs by proficient and competitive staff of manufacturing firms yield consistent return on the share of the organization within the industry. Furthermore, Human Capital and Structural Capital have negative but significant effect on Debt-Equity ratio while Relational capital also indicated a downhill relationship with Debt-Equity ratio. The companies under study have been financed in a greater deal by loan finances than equity financing. This apparently will tend to scare investors' interest as solvency doubts may arise.

Base on the concluding remark above, we recommend that ;

1. Since HCE has been shown to be key drivers of value creation especially DER, deliberate efforts should be made to grow IC of firms by first recruiting very competent staff, train and motivate them. Companies must strategically and deliberately train and retain staff for a long time to avoid losing the intellectual assets possessed by them. They should equally organize programmes that will increase their structures and enhance information technology. These could stimulate better Market Share and Debt-to-Equity.
2. Firms should harness the benefits accruable in external relationships as no one firm is an island. Customers, suppliers and others must be seen as partners in progress and where they have been recognized; their activities should be well reported.
3. Manufacturing firms should consider the option of greater portion of equity financing for their activities. This will bring more people to know about their existence, keep them in track with reporting issues and boost external confidence in their overall operations.

#### REFERENCES

- Aboody, D. & Lev, B. (2000). 'Information asymmetry, R&D and insider gains', *Journal of Finance*, 55(6), 2747-2766.
- Adams, J. S. (1963). Towards an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67, 422-436.
- Ahmad, S., & Mushraf, A. M. (2011). The Relationship between Intellectual Capital and Business Performance. *International Conference on Management and Artificial Intelligence*.6:104-109.
- Al-Ali, N. (2003). *Comprehensive Intellectual Capital Management: Step-by-Step*, John Wiley and Sons, Inc, New Jersey.
- Batemen, T. S. & Strasser, S. (1984). A longitudinal analysis of the antecedents of organizational commitment. *Academy of Management Journal*, 27(1), 95-112.
- Barth, M.E., Kasznik, R., McNichols, M., (2001). Analyst coverage and intangible assets. *Journal of Accounting Research* 39 (1), 1-34.
- Barney, J.B., (2001), Is the Resource-Based Theory a Useful Perspective for Strategic Management Research? Yes. *Academy of Management Review*; 26 (1), 41-56.
- Barney, J. B. & Hansen, M. H. (1994). Trustworthiness as a Source of Competitive Advantage. *Strategic Management Journal*, 15 (S1): 175-190.
- Bassi, L. & McMurrer, D. (2006). "Human Capital and Organizational Performance: Next Generation Metrics as a catalyst for change". White Paper McBassi & Company
- Beattie, V. & Thompson, S. (2004). A comprehensive analysis of intellectual capital components as a precursor to empirical investigation of disclosures in annual reports, *Paper presented at the 8th Annual Financial Reporting and Business Communication Conference*, Cardiff.
- Becker, G. S. (1964). Human capital. New York: *National Bureau of Economic research*. Becker, T.E., Billings, R.S., Eveleth, D.M. & Gilbert, N.L. (1996). 'Foci and Bases of employee commitment: implications for job performance' *Academy of Management Journal*, 39, 464-482.
- Belasco, J.A. & Sayer, R.C. (1994). Why empowerment doesn't empower. The bankruptcy of current paradigms. *Business horizons*, 37(2), 29-41
- Bodie Z., A. Kane & Alan J. Marcus. (1993). *Investments*. New York: Irwin.
- Bontis, Nick. (1996a). "There's a Price on your Head: Managing Intellectual Capital Strategically", *Business Quarterly*, Summer, 60(4), 40-47
- Bontis, N. (2010). Intellectual capital and business performance in the pharmaceutical sector of Jordan *Management Decision*. 48(1), 105-131 *Emerald Group Publishing Limited*
- Bontis, N. (2010). Assessing knowledge assets: a review of the models used to measure intellectual capital. *International Journal of Management Reviews*, 1-24
- Bowles, S. & Gintis, H. (1975). The Problem with Human Capital Theory – A Marxian Critique, *American Economic Review*, 65(2), 74-82
- Bozzolan, S., Favotto, F., & Ricceri, F. (2003). Italian annual intellectual capital disclosure. *Journal of Intellectual Capital*, 4(4), 543-558.
- Brătianu, C. (2009). The intellectual capital of universities. *Annals of the University of Ljubljana*.
- Brennan, N., & Connell, B. (2000). Intellectual capital: Current issues and policy implications. *Journal of Intellectual Capital*, 1(3), 206-240.

- Byrnes, N., & Henry, D., (2001). 'Confused about earnings?' Business Week.
- Bruggen, A., Vergauwen, P., & Dao, M. (2009). Determinants of intellectual capital disclosure: evidence from Australia. *Management Decision*, 47(2), 233-245.
- Bukh P N D, H T Larsen & J Mouritsen (2001). 'Constructing intellectual capital statements', *Scandinavian Journal of Management*, 17(1), 78-108.
- Cabrita, M. & Bontis, N. (2008). "Intellectual capital and business performance in the Portuguese banking industry", *International Journal of Technology Management*, 43 (1-3), 212-37.
- Callon, M. (1986). "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay." In John Law (ed.), *Power, Action and Belief: A New Sociology of Knowledge*. London: Routledge & Kegan Paul.
- Carrell, M.R., & Dittrich, J.E. (1978). Equity theory: the recent literature, methodological considerations, and new directions. *The Academy of Management Review*.3(2), 202-210.
- Celemi, (1998). 'Growing knowledge company – *Celemi intangible assets monitor*', [www.celemi.se/sbc/sbc2.html](http://www.celemi.se/sbc/sbc2.html).
- Cezair, J. (2008). Intellectual Capital: Hiding in plain view. *Journal of performance management*, 21:29-39
- Chan, K. H. (2009a). Impact of intellectual capital on organizational performance: An empirical study of companies in the Hang Seng Index (Part 1).*The Learning Organization*, 16(1), 4-21.
- Chareonsuk, C., & Chansa-ngavej, C. (2008). Intangible asset management framework for long-term financial performance. *Industrial Management & Data Systems*, 108(6), 812 - 828.
- Chatzkel, J. (2002) 'A conversation with Göranroos', *Journal of Intellectual Capital*, 3(1), 96-117.
- Chauhan, N. & Bontis, N. (2004) 'Organizational learning via groupware: a path to discovery or disaster?', *Int. J. Technology Management*, 27(2), 591-610.
- Chen, M. C., Cheng, S. J., & Hwang, Y. (2005). An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance. *Journal of Intellectual Capital*, 6(2), 159-176.
- Cohen, S., & Kaimenakis, N. (2007). Intellectual capital and corporate performance in knowledge-intensive SMEs. *The Learning Organization*, 14(3), 241-262.
- Collis, D.J. (1996), "Organizational capability as a source of profit", in Moingeon, B. and Edmondson, A. (Eds), *Organizational Learning and Competitive Advantage*, Sage, London.
- Daley, J. (2001). The Intangible Economy and Australia, *Australian Journal of Management*, 26 (2): 4-19.
- Diamond, D.W, Verrecchia, R.E (1991) Disclosure, Liquidity, and the Cost of Capital. *J Finance* 46: 1325-1359.
- Darroch, J. & McNaughton, R. (2002) 'Developing a measure of knowledge management', In N. Bontis (Ed.), *World Congress on Intellectual Capital Readings*, (226-242) Boston, MA: Butterworth-Heinemann.
- Davies, C.A. & Magowan, J. (2002). 'An examination of the transfer of intellectual capital across cultures', In N. Bontis (Ed.), *World Congress on Intellectual Capital Readings*.(356-373) Boston, MA: Butterworth-Heinemann
- Dierickx, I., Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35(12), 1504-1511
- Dodgson, M. (1992). 'The strategic management of R&D collaboration'. *Technology Analysis and Strategic Management*, 4(3), 227-44.
- Drucker, P.F. (1993). *Post-Capitalist Society*. HarperCollins, New York
- Eccles, R.G. & Mavrinac, S.C. (1995). Improving the corporate disclosure process, *Sloan Management Review*, 36 (4): 11-25.
- Edmondson, A. & Moingeon, B. (1996). Introduction: Organizational learning as a source of competitive advantage. In B. Moingeon & A. Edmondson (Eds), *Organizational Learning and Competitive Advantage* 7-15. London: Sage.
- Edvinsson, L. (1997). Developing Intellectual Capital in Scandia. *Long Range Planning*, 30(3), 320 -331.
- Edvinsson, L. & Malone, M. (1997). Intellectual capital: Realising your company's true value by finding its hidden brain power, *Journal of Human Resources Accounting*, 4(1), 21-33.
- Fincham, R., Roslender, R. (2003). *The Management of Intellectual Capital and its Implications for Business Reporting* Edinburgh: The Institute of Chartered Accountants of Scotland, 86.
- Francis, J., & Schipper, K. (1999). Have Financial Statements Lost Their Relevance? *Journal of Accounting Research*, 37(2), 319-352.
- Frese, M. and J. Sabini (1985), *Goal Directed Behavior: The Concept of Action in Psychology*. Hillsdale: Erlbaum.
- Gareth Morgan (2007). *Images of organization*. Thousand Oaks, CA: Sage publications.
- Gietzmann, M., Ireland, J., (2005). Cost of capital, strategic disclosures and accounting choice. *Journal of Business Finance & Accounting* 32 (3 & 4): 599-634.
- Gibbert, M. Leibold, M. & Voelpel, S. (2001). 'Rejuvenating corporate intellectual capital by co-opting customer competence', *Journal of Intellectual Capital*, 2:109-126.
- Gray, R.H. (2006). Social, environmental and sustainability reporting and organizational value creation? Whose value? Whose creation?. *Accounting, Auditing and Accountability Journal*, 19(6).
- Gu F. & Lev B. (2001). *Markets in intangibles: patent licensing*, working paper, New York University.
- Gulati, R. (1995). 'Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances'. *Academy of Management Journal*, 38(4), 85-112.

- Guthrie, J.; Petty, R. & Ricceri, F. (2006). The Voluntary Reporting of Intellectual Capital: Comparing Evidence from Hong Kong and Australia, *Journal of Intellectual Capital*, 7 (2), 254-271.
- Guthrie, J., Cuganesan, S., Ward, L. (2007). *Extended performance reporting: Evaluating corporate social responsibility and intellectual capital management. Issues in Social and Environmental Accounting*, 1(1), 1-25.
- Håkansson, H. & Snehota, I. (1995). *Developing relationships in business networks*. London: Routledge.
- Halim, S. (2010). Statistical Analysis on the Intellectual Capital Statement. *Journal of Intellectual Capital*, 11 (1), 61-73.
- Hall, R. (1993). 'A Framework Linking Intangible Resources and Capabilities to Sustainable Competitive Advantage', *Strategic Management Journal* 14(6)607-618.
- Hall, B. (1995). *Values Shift: A Guide To Personal And Organizational Transformation*, Rockport, MA: Twin Lights.
- Hamehkhani, S., Boochani, K., & Barani, M. T. (2014). Analyzing the effects of intellectual capital on market value and financial performance of companies in the steel industry. *Journal of Applied Environmental and Biological Sciences*, 4(1), 60-68.
- Hamel, G. (1991). 'Competition for competence and inter-partner learning within International strategic alliances'. *Strategic Management Journal*, 12: 83-103. Summer Special Issue.
- Handy, Charles B. (1989). *The Age of Unreason*. London: Arrow Books Ltd.
- Hedlund, G. (1994). 'A model of knowledge management in the N-form corporation'. *Strategic Management Journal*, 15:73-90
- Henderson, R. & Cockburn, I. (1994). Measuring competence? Exploring firm effects in pharmaceutical research. *Strategic Management Research*, 15:63-84
- Horibe, F. (1999). *Managing Knowledge Workers – New Skills and Attitudes to Unlock the Intellectual Capital in your Organisation*. Toronto: John Wiley & Sons.
- Hines, R. D. (1988). "Financial accounting: In communicating reality, we construct reality", *Accounting, Organizations & Society*, 13 (3), 251-261
- Hofstede, G. (1991). *Cultures and organizations software of the mind*. London: McGraw-Hill.
- Holland, J. (2003). Intellectual capital and the capital market-organisation and competence. *Accounting, Auditing & Accountability Journal*, 16(1), 39-48.
- Holland, J. (2004). *Corporate Intangibles, Value Relevance and Disclosure Content*, Edinburgh: Institute of Chartered Accountants of Scotland
- Hudson, W. (1993). *Intellectual Capital: How to Build it, Enhance it, Use it*. NY: John Wiley & Sons.
- Hulland, J. (1995). 'Market orientation and market learning systems: an environment strategy performance perspective', *Working Paper*, University of Western Ontario
- Huseman, R.C., Hatfield, J.D. & Miles, E.W. (1987). A new perspective on equity theory: the equity sensitivity construct. *The Academy of Management Review*. 12(2), 222-234.
- Hussi, T. (2004). Reconfiguring knowledge management – Combining Intellectual Capital, intangible assets and knowledge creation. *Journal of Knowledge Management*, 8(2), 36-52.
- IASB (2002). *International Accounting Standards Committee Foundation, Annual Report*, London: International Accounting Standards Board
- Ibikunle, J., Oba, V. C., Nwifo, C. (2013). Determinants of intellectual capital disclosures in Nigeria. *Ekonomika*, 9(6), 195-206.
- Ihyaul Ulum, I., Ghozali, I. & Purwanto, A. (2014). Intellectual Capital Performance of Indonesian Banking Sector: A Modified VAIC (M-VAIC) Perspective. *Asian Journal of Finance & Accounting, ISSN 1946-052X*, 6(2).
- Itami, H. (1987). *Mobilizing Invisible Assets*. London: Harvard University Press
- Joshi, M., Cahill, D., & Sidhu, J. (2010). Intellectual capital performance in the banking sector: An assessment of Australian owned banks. *Journal of Human Resource Costing & Accounting*, 14(2), 151-170.
- Kačinskaitė, E. (2008). Dvasinio capital oraiška organizacijose. *Magistro baigiamasis darbas*. Kaunas: *Vytauto Didžiojo universitetas*, 88.
- Kaplan, R. S. & Norton, D. P. (1992). 'The balanced scorecard: measures that drive performance', *Harvard Business Review*, 70(1), 71-79.
- Kelley, H. (1967). "Attribution Theory in Social Psychology," in D, Levine, ed.
- Khalique, M., Shaari, J. A. N., Isa, A. H. M & Ageel, A. (2011). Relationship of intellectual capital with the organizational performance of pharmaceutical companies in Pakistan. *Australian Journal of Basic and Applied Sciences*, 5(12), 1964-1969.
- Kirzner, I. M. (2001). Entrepreneurial discovery and the competitive market approach: An Austrian approach. *Journal of Economic Literature*, 35(7), 60-85.
- Klein, D.A. & Prusak, L., (1994). Characterizing intellectual capital. *Working Paper, March*. Centre for Business Innovation, Ernst and Young.
- Kodama, F. (1992). "Technology Fusion and the New R&D," *Harvard Business Review*, 70(5), 70-78.
- Kogut, B., & Zander, U. (1995). 'Knowledge and the speed of the transfer and the imitation of organizational capabilities: An empirical test.' *Organization Science*, 6(1), 76-91.
- Kohli, A.K. & Jaworski, B.J. (1990). 'Market orientation: the construct, Research propositions and managerial implications', *Journal of Marketing*, 54:1-18
- Kong, E. & Prior, D. (2008). An intellectual capital perspective of competitive advantage in nonprofit organisations. *International Journal Nonprofit Voluntary Sector Marketing*, 13(6), 119-128

- Kujansivu, P. & Lönnqvist, A. (2007). How do investments in intellectual capital create profits?, *International Journal of Learning and Intellectual Capital*, 4(3), 256-275.
- Latour, B., (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford UK.
- Lazarcic, N. & Lorenz. E. (1995) 'Trust and organizational learning during inter- firm cooperation', *Proceedings of Seminar on Confidence, apprentissage et anticipation Économique*. Compiègne, France
- Lee, L.L., & Guthrie, J., (2010). Visualizing and measuring intellectual capital in capital markets: a research method, *Journal of Intellectual Capital*, 11(1), 4-22
- Leitner, K.H. & Warden, C. (2004). Managing and reporting knowledge-based resources and processes in research organizations: specifics, lessons learned and perspectives. *Management Accounting Research*, 15:33-51.
- Leuz, C. & Verrecchia, R. (2000). The economic consequences of increased disclosure, *Journal of Accounting Research*, 38 (Supplement): 91-124
- Lev B. & Radhakrishnan S. (2003). *The measurement of firm-specific organisation capital*, NBER working paper 9581.
- Lev, B. & Zambon, S. (2003). Intangibles and intellectual capital: an introduction to a special issue, *European Accounting Review*, 12(4), 597-603.
- Levitt, A. (1998). The importance of high quality accounting standards, *Accounting Horizons*, 12 (2), 79-82.
- Lippman, S.A., Rumelt, D.P. (1982). Uncertain limitability: an analysis of inter-firm differences in efficiency under competition. *The Bell Journal of Economics*, 13(2), 418-438
- Lynn B (1998). *The management of intellectual capital: the issues and the practice*, The Society of Management Accountants of Canada, Hamilton, Ontario.
- Maditinos, D., Šević, Ž. & Tsairidis, C (2009). Intellectual Capital and Business Performance: An Empirical study for the Greek Listed Companies. *7th International Conference on Accounting and Finance in Transition (ICAFT)*, Greenwich University, The Business School, London
- Marr, B. & Schiuma, G. (2001). Measuring and managing intellectual capital and knowledge assets in new organisations, in *Handbook of Performance Measurement*, M. Bourne (ed.), London: Gee.
- Mavridis, D. G. (2005), "Intellectual capital performance determinants and globalisation status of Greek listed firms", *Journal of Intellectual Capital*, 6(1), 127-140.
- Mayer, R.C., Davis, J.H. & Schoorman, F.D. (1995) 'An Integrative Model of Organizational Trust', *Academy of Management Review*, 20(3), 709-734.
- McMullen JS, Shepherd DA. 2006. Entrepreneurial Action and the Role of Uncertainty in the Theory of the Entrepreneur. *Academy of Management Review* 31(1), 132-152
- Melle, M. (2007). La responsabilidad social dentro del sector público. *Ekonimiz*, 65:84-107.
- Meyer, J. P. & Allen, N. J. (2007). A three-component conceptualization of organizational commitment. *Human Resource Management Review*. 1(1), 61-89.
- Mohiudin, M.; Najibullah, S. & Shahid, A. I. (2006), An Explanatory Study on Intellectual Performance of the Commercial Banks in Bangladesh, *The Cost and Management*, 34(6), 40-54.
- Mondal, A. (2015). Application of Modified VAICTM Model for Measuring Intellectual Capital Performance. *International Journal of Research in Finance and Marketing (IJRFM)* <http://euroasiapub.org> 6 (11), 19-30  
ISSN(o): 2231-5985 , Impact Factor: 5.861 | Thomson Reuters ID: L-5236-2015
- Mouritsen, J. (1998). "Driving growth: Economic value added versus intellectual capital", *Management Accounting Research*, 9(4), 461-482.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242-266
- Nimtrakoon, S. (2014). *The Relationship between Intellectual Capital, Firm's Market Value And Financial Performance: Empirical Evidence From Asian Countries*. Unpublished research work
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14-37.
- Nonaka, I. & Takeuchi, T. (1995). *The knowledge-creating company*. New York: Oxford University Press.
- O'Reilly M, Wathey D, Gelber M. (2000). ISO 14031: effective mechanism to environmental performance evaluation. *Corporate Environmental Strategy* 2000;7(3):267-275.
- Ordóñez de Pablos, P. (2002). 'Evidence of intellectual capital measurement from Asia, Europe and Middle East', *Journal of Intellectual Capital*, 3:287- 302.
- Osterloh, M. & Frey, B.S. (2000). 'Motivation, knowledge transfer and organizational forms', *Organization Science*, 11:538-550.
- Pal, K., & Soriya, S. (2012). IC performance of Indian pharmaceutical and textile industry. *Journal of Intellectual Capital*, 13(1), 120-137.
- J. M. & Harianto F. (1992). Technological networking and innovation
- Pavitt, K. (1971). 'The multinational enterprise and the transfer of technology', in John Dunning, editor, *The Multinational Enterprise*. London: George Allen and Unwin
- Pena, (2002). Intellectual capital and business start-up success. *Journal of Intellectual Capital*, 3(2), 180-198.
- Petty, R. & Guthrie, J. (2000). 'Intellectual capital literature review: measuring, reporting and management', *Journal of Intellectual Capital*, 1: 155-176.
- Porter, L. W., Steers, R. M., Mowday, R. T. & Boulian, P. V. (1974). Organizational

- commitment, job satisfaction and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5), 603-609.
- Pulic, A. (2000). MVA and VAICTM analysis of randomly selected companies from FTSE 250. Available at: [www.vaictonet/start.htm](http://www.vaictonet/start.htm)
- Pulic, A. (1998). Measuring the performance of intellectual potential in knowledge economy. From <http://www.measuring-ip.at/Opapers/Pulic/Vaictxt.vaictxt.html>
- Quinn, J.B., Anderson, P. & Finkelstein, S. (1996). 'Managing professional intellect: making the most of the best', *Harvard Business Review*, 74: 71-80.
- Ramirez, Y. (2010). Intellectual capital models in Spanish public sector. *Journal of Intellectual Capital*, 11(2), 248-264.
- Richardson, A.J., Welker, M., (2001). Social disclosure, financial disclosure and the cost of equity capital. *Accounting, Organisations and Society* 26 (7- 8), 597-616.
- Robbins, P. S., Judge, T. A., & Vohra, N. (2010). *Organisation Behavior ED 14*:103
- Roslender, R., & Fincham, R., (2003). 'The management of intellectual capital and its implications for business reporting', *Research Monograph, Edinburgh: The Institute of Chartered Accountants of Scotland*.
- Roos, G. & Roos, J. (1997). "Measuring your company's intellectual performance", *Journal of Long Range Planning*, 30 (3), 413-426.
- Rousseau, D.M., Sitkin, S.B., Burt, R.S. & Camerer, C. (1998) 'Introduction to Special topic forum, not so different after all: a cross-discipline view of trust', *Academy of Management Review*, 23:393-404. *Capital Readings* Boston, MA: Butterworth-Heinemann.
- Rudez, H. N., & Mihalic, T. (2007). Intellectual capital in the hotel industry: a case study from Slovenia. *Hospitality Management*, 26: 188-199.
- Rumelt, D.P. (1984). Towards a strategic theory of the firm. *Alternative theories Of the firm: 2002*, (2), 286-300.
- Rylander, A., Jacobsen, K. & Roos, G. (2000). Towards improved disclosure on intellectual capital, *International Journal of Technology Management*, 20 (5-8): 715-741.
- Saint-Onge, H. (1996). Tacit knowledge: the key to the strategic alignment of intellectual capital. *Strategy & Leadership*, 42, (2), 10-14.
- Salteh, H. M. Z., Nahandi, Y. B., Koushali, J. A. (2013). Studying the relationship between governmental ownership and intellectual capital performance. *Trends in Social Science*, 6(1), 100-108.
- Sánchez, P., Elena, S. & Castrillo, R. (2009). Intellectual capital dynamics in universities: a reporting model. *Journal of Intellectual Capital*, 10(2), 307-324
- Sarasvathy, S.D. (2001). Causation and effectuation: toward a theoretical shift from economic inevitability to entrepreneurial contingency. *The Academy of Management Review*, 26 (2), 243-288.
- Schultz, T.W. (1961). 'Investment in human capital', *American Economic Review*, 51: S 1-17.
- Seleim, A., Ashour, A. & Bontis, N. (2004), "Intellectual capital in Egyptian software firms", *The Learning Organization: An International Journal*, 11(4-5), 332-46.
- Shiu, H. J. (2006). The application of the value added intellectual coefficient to measure corporate performance: evidence from technological firms. *International Journal of Management*, 23(2), 356-365.
- Skandia. (1994) 'Visualizing intellectual capital in Skandia', *a supplement to Skandia's Annual Report*, Sweden.
- Slater, S. & Narver, J. (1995) 'Market orientation and the learning organisation', *Journal of Marketing*, 59:63-74.
- Spence, M. (1973). Job market signaling, *Quarterly Journal of Economics*, 87(3), 355-374
- Stahle, P., Stahle, S. (2006) *Intellectual capital and national competitiveness: Conceptual and methodological challenges*. In: Bounfour, A. (ed.). *Capital Immaterial, Connaissance et Performance*. Paris, L'Harmattan
- Stewart, T. A., (1991). 'Brainpower', *Fortune* 123: 44-50
- Stewart, T.A. (1997), *Intellectual Capital: The Wealth of New Organizations*, Nicholas Brealey Publishing, London
- Stovel, M. & Bontis, N. (2002). 'Voluntary turnover: knowledge management friend or foe'. *Journal of Intellectual Capital*, 3:303-322.
- Subramaniam, M. & Youndt, M. A. (2005). The influence of intellectual capital on the types of innovative capabilities. *The Academy of Management Journal*, 48(3), 450-463.
- Sveiby, K.E. (1997), *The New Organizational Wealth: Managing and Measuring Knowledge-Based Assets*, Berrett-Koehler, New York, NY.
- Sveiby, K. E., (1988), 'The new annual report (translated from Swedish: Den Nya Arsredovisingen)', [www.sveiby.com.au](http://www.sveiby.com.au)
- Taliyang, S. M., Latif, R. A., & Mustafa, N. H. (2011). The determinants of intellectual capital disclosure among Malaysia listed companies. *International Journal of Management and Marketing Research*, 4(3), 25-33.
- Tay, J. & Parker, R., (1990), Measuring International Harmonization and Standardization, *Abacus*, 26(1), 71-87
- Teece, D.J. 1988. Capturing value from technological innovation: Integration, strategic planning, and licensing decisions. *Interfaces*, 18(3), 46-61.
- Ting, I. W. K. & Lean, H. H. (2009). Intellectual capital performance of financial institutions in Malaysia. *Journal of Intellectual Capital*, 10(4), 588-599.
- Tseng, C.-Y. & Goo, Y.-J.J. (2005), "Intellectual capital and corporate value in an Emerging economy: empirical study of Taiwanese manufacturers", *R&D Management*, 35 (2), 187-201.

- Tovstiga, G. & Tulugurova, E. (2007). Intellectual capital practices and performance in Russian enterprises. *Journal of Intellectual Capital*, 8 (4), 695-707.
- Uadiale, O. M., & Uwuigbe, U. (2011). Intellectual capital and business performance evidence from Nigeria. *Interdisciplinary Journal of Research in Business*, 1(10),49-56.
- Ulrich, D. (1998). 'Intellectual capital = Competence × Commitment', *Sloan Management Review*, 39, 15–26.
- Unerman, J., Guthrie, J. & Striukova, L. (2007). *UK reporting of intellectual capital*, London: Institute of Chartered Accountants of England and Wales
- Onyekwelu, U. L. & Ubesie, M. C. (2016), Effect of Intellectual Capital on Corporate Valuation of Quoted Pharmaceutical firms in Nigeria. *International Journal of Business and Management*, 4(7) 50-59.
- Veltri, S., Mastroleo, G. & Schaffhauser, M. (2012). Measuring intellectual capital in the University Sector Using a Fuzzy Logic Expert System. *Knowledge Management Research and Practice*, Advanced Online Publication, doi:10.1057/kmrp.2012.53
- VonMises, L. (1963). *Human action: A treatise on economics*. Chicago: Henry Regnery
- Wang, J. C. (2008). Investigating market value and intellectual capital for S&P 500. *Journal of Intellectual Capital*, 9(4), 546 - 563.
- Wernerfelt, B. (1984). The resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180.
- Williams, S. M. (2001). Is intellectual capital performance and disclosure practices related? *Journal of Intellectual Capital*, 2(3), 192–203.
- Woodward, J., (1958): *Management and Technology*: Her Majesty's Stationary Office. London
- Wu, H.Y., Chen, J.K. & Chen, I.S. (2012). Ways to promote valuable innovation: intellectual capital assessment for higher education system. *Qual Quant*46(13),77-191
- Yau, F. S., Chun, L. S., & Balaraman, R. (2009). Intellectual capital reporting and corporate characteristics of public-listed companies in Malaysia. *Journal of Financial Reporting & Accounting*. 7(1), 17-35.
- Zambon, S. (2002), "Accounting, intangible and intellectual capital: an overview of the issues and some considerations", *Working Paper 4*, University of Ferrara, Ferrara
- Zander, U. & Kogut, B. (1995). 'Knowledge and the speed of transfer and limitation of organizational abilities: an empirical test'. *Organization Science*. 6(1), 76–92