

Sokoto Journal *of the* Social Sciences

(Formerly Journal of Social Science and Administration)

ISSN: 1595-2738

Vol. 3 No. 1, June 2013 & No. 2, December 2013

EDITORIAL BOARD

Editor-in-Chief

Prof. I. S. Ogundiya

Technical Editor/Journal Secretary

Dr. Yahaya T. Baba

Business Editor

Dr. Ibrahim M. Dankani

Associate Editors

Dr. Shehu Sidi (*Modern European Languages*)

Dr. Tukur Garba (*Economics*)

Dr. Sheikh D. Abubakar (*Geography*)

Dr. Bilkisu Sai'du (*Law*)

Dr. Usman. Ahmed Karofi (*Sociology*)

Consulting Editors:

Prof. A.A.B. Agbaje

Department of Political Science, University of Ibadan

Prof. D. O. Ogbonna

Department of Geography, Kogi State University, Anyingba

Prof. S. Nkom

Department of Sociology, A. B.U. Zaria

Dr. Haruna Dhillakwa

Department of Political Science University of Maiduguri

Prof. A. S. Mikailu

Department of Management Studies, UDU, Sokoto

Prof. Adeola Adenikinju

Department of Economics, University of Ibadan

Prof. W.A. Fawole

Department of International Relations, Obafemi Awolowo University, Ile-Ife

Subscriptions and Marketing

Two Issues are published per year, in June and December by the Faculty of the Social Science, Usmanu Danfodiyo University, Sokoto, Nigeria. Annual subscriptions (2012): Nigeria ₦3,000 (individual); ₦5,000 (institution) including postage. Rest of Africa, and the World US \$25 (individual), US \$75 (institution). Single issues, Nigeria: ₦ 2,000 (individual), ₦3,000 (institution); rest of Africa and the World US \$50. For advertisement and other marketing details contact:

The Business Editor

Sokoto Journal of the Social Sciences,

Department of Geography

Usmanu Danfodiyo University, Sokoto

E-mail: imdankani@gmail.com

CONTENTS

About the Journal
Editorial Board

vi
xi

EVALUATION OF SANITATION PRACTICES IN
IBADAN SOUTH EAST LGAS OF OYO STATE,
NIGERIA

*Oke Mustapha Oludare and
Atinsola Musibau Alabi*

96

VOLUME 3: NO. 1, JUNE 2013

THE PREDICTIVE ABILITY OF SOCIAL
CONTROL THEORY IN EXPLAINING
VIOLENCE

Udo Chikezie Osisioogu, PhD

1

POVERTY ALLEVIATION, PLANT
RESOURCES AND SUSTAINABILITY IN
NIGERIA

Idris Zakariyya Kiri

114

COPING WITH CLIMATE CHANGE: THE
IMPERATIVE FOR HOME-BASED GREEN
AREA IN PHYSICAL DEVELOPMENT PLANS
IN NIGERIA

*Alaci, Davidson S.A. (PhD); Tifwa Hassan Y.;
Obadoba, Joy O.;* Olatunde, Adewale F.;**
and Ogwu, William A.***S*

16

IDENTIFYING CRITICAL PROXIMATE
DETERMINANTS OF MATERNAL
MORTALITY IN SUB-SAHARAN AFRICA:
A CROSS-COUNTRY ANALYSIS

*Raheem U.A, Abdullahi A.A,
Awotayo, G.P and Jimoh, M. Yusuf*

124

YOUTHS UNEMPLOYMENT, SOCIAL
EXCLUSION AND CHALLENGES OF
SUSTAINABLE DEVELOPMENT
IN NIGERIA

**Adegboyega Kamorudeen, Abdulkareem
Simiat Bidemi*

29

NEGOTIATING SEXUAL RIGHTS AMONG
WOMEN IN THE PURDAH SYSTEM OF
SOKOTO METROPOLIS: A QUALITATIVE
ACCOUNT

Jimoh Amzat

136

TRANSPARENCY AND THE EFFECTIVENESS
OF ANTI-CORRUPTION AGENCIES IN THE
FEDERAL PUBLIC SERVICE OF NIGERIA

Dr Musa Idris

43

AN EXPOSITION OF THE CHARACTERISTICS
OF RELIGIOUS NON-GOVERNMENTAL
ORGANIZATIONS IN NIGERIA: PERISCOPING
INTO THE FEDERATION OF MUSLIM
WOMEN'S ASSOCIATIONS OF NIGERIA

Mustapha Hashim Kurfi

148

FEDERALISM AND NATIONAL
INTEGRATION: THE INDIGENE/SETTLER
DICHOTOMY IN NIGERIA

**Auwalu Musa, MPA, and **Yusuf A.
Manu Gella*

57

WORLD BANK ASSISTED COMMUNITY
DRIVEN PROJECT IMPLEMENTATION IN
KWARA STATE, NIGERIA: IMPLICATION
FOR SUSTAINABLE RURAL PARTICIPATORY
DEVELOPMENT AND COMMUNITY
INITIATIVES

Dr Olawepo, R.A and Akanbi, O.A

161

INDIRECT MONETARY POLICY REFORMS
AND INFLATION DYNAMICS: EVIDENCE
FROM NIGERIA

Gideon G. Goshit

74

PREVALENCE OF KNOWLEDGE AND USE
OF CONTRACEPTIVE METHODS AMONG
URBAN AND RURAL WOMEN IN ABIA
STATE, NIGERIA

C. K. Imo and Prof. U. C. Isiugo-Abanihe

176

STATE MOTIVATION AND NUCLEAR
PROLIFERATION: A CRITICAL REVIEW

Abubakar Jika Jiddere

87

VOLUME 3: NO. 2, DECEMBER 2013

DO MONETARY POLICY VARIABLES STIMULATE ACTIVITIES ON THE STOCK MARKET? EVIDENCE FROM THE NIGERIAN STOCK MARKET

Gimba V. K. (PhD) 195

NEGOTIATING THE PATH TO ECO: SHOULDN'T HUMAN SECURITY CONCERNS DRIVE MONETARY INTEGRATION OF ECOWAS?

Lere Amusan, PhD & Demola Jegede 213

FACTORS AFFECTING THE ADOPTION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS)

Odia J.O. (Ph.D) 228

VOLUNTARY INTERNET FINANCIAL REPORTING IN QUOTED COMPANIES IN NIGERIA

*Theresa Nkechi Ofor (Ph.D) and
Peter Okoeguale Ibadin (Ph.D.FCTI.ACA)* 243

PUBLIC SECTOR DEFICIT, EXCHANGE RATE AND EXTERNAL ACCOUNTS: EVIDENCE FROM NIGERIA

LIKITA OGBA PhD 264

THE ROLES OF LOCAL GOVERNMENT COUNCILS IN ADULT EDUCATION DELIVERY IN NIGERIA

*Muhammad Shehu Hussain and
Abdullahi Umar Alhassan* 272

REALISATION OF NUCLEAR WEAPONS FREE ZONE IN THE MIDDLE EAST: CHALLENGES AND PROSPECTS

Bashir Sa'ad Ibrahim, MCICN, CAIAR 281

SURFACE RUNOFF RESPONSES TO RAINFALL VARIABILITY OVER THE BIDA BASIN, NIGERIA

Suleiman Yahaya Mohammed, Ph.D 296

FUND UTILIZATION AND PERFORMANCE OF FEDERAL UNIVERSITIES OF TECHNOLOGY IN NIGERIA

*Mauda Ahmed Bakari and Shehu Usman
Hassan PhD* 305

AUDIT COMMITTEE MULTIPLE DIRECTORSHIP AND FINANCIAL REPORTING QUALITY: EMPIRICAL EVIDENCE FROM NIGERIA

*Ofuan James Ilaboya (Ph. D, FCA, FCTI)
and Kennedy Prince Modugu (B.Sc, M.Sc)* 319

DISTRIBUTION OF TRADITIONAL HERBAL MEDICAL SERVICES IN SOKOTO METROPOLIS, SOKOTO STATE

Mustapha Sani 334

INTELLECTUAL CAPITAL DISCLOSURE IN FINANCIAL REPORTS OF NIGERIAN COMPANIES

*Ramat Titilayo Salman, Noah Abdulrafiu
Olaiya and Florence Olubunmi Oseneme* 356

THE CHALLENGE OF SOCIAL ORDER: SOCIOLOGICAL THEORIZING ON SOCIAL CONFLICT AND CONFLICT RESOLUTION IN NIGERIA

Dr. Obaro, Ogaga Ayemo 376

ENHANCING RURAL FARMERS' ACCESS TO AGRICULTURAL INFORMATION IN PLATEAU STATE: THE IMPERATIVES OF INDIGENOUS COMMUNICATION SYSTEMS

Ezekiel S. Asemah and Santas Tsegny 392

KNOWLEDGE ACQUISITION, ICT AND THE DYNAMICS OF MATE SELECTION AMONG NIGERIAN YOUTH

*Olayinka Akanle and Oladimeji Olamide
Oluwatosin* 409

INTELLECTUAL CAPITAL DISCLOSURE IN FINANCIAL REPORTS OF NIGERIAN COMPANIES

***Ramat Titilayo Salman, Noah Abdulrafiu Olaiya and Florence Olubunmi
Osememe**

Department of Accounting, University of Ilorin, Ilorin, Nigeria.

**Corresponding Author: Email: titisalman@yahoo.com*

Abstract

This study examines the extent and quality of Intellectual Capital (IC) disclosure in the financial reports of selected companies in Nigeria. IC disclosure index was constructed to code items in the annual reports of 50 different Nigerian companies using content analysis methods. The finding of the study is consistent with the previous studies, revealing that the levels of IC disclosures in the financial reports of the sampled companies are not high. Most of the reported IC drivers are expressed in narrative and qualitative rather than in quantitative or monetary terms. Relational capital was the highest reported in the financial statements of Nigerian companies as well as having the highest quality of disclosure among the three main categories of IC. However, the number of intellectual capital items disclosed by the sampled Nigerian companies is high, indicating that there is a clear awareness of the importance of IC disclosure. Even though the disclosure quality is low, the high volume of IC items being disclosed suggests that Nigerian companies have a modest commitment in communicating their IC information to the stakeholders.

Keywords: Intellectual capital, disclosure, annual reports, Nigerian Companies.

Introduction

In the information era where knowledge asset is most important and considered as having economic value that drives the profitability and sustainability of a company (Meditinos, Chatzoudes, Tsairidis and Theriou, 2011; Calisir, Gumussoy, Cirit and Bayraktaroglu, 2010; Salamudin, Bakar, Ibrahim and Hassan, 2010; Amir and Lev, 1996), the disclosure of such asset/ resource is crucial. This knowledge asset includes intellectual capital (employee (Human capital), process (Structural capital) and

customer relationship (Relational capital)). Researchers have stressed that non disclosure of such asset will create information asymmetry (Guthrie and Petty, 2000; Holland, 2009). In this era, the competitiveness of a company is important and has become a basic building block for corporate excellence (Lim and Dallimore, 2004). The more a company measures and discloses its intellectual resource/capital, the more it becomes competitive and retains the confidence of its stakeholders

(investors and creditors). In other words, if intellectual capital of a reporting entity is not disclosed, the book value of its share and market value will diverge (Okwy and Christopher, 2010; Holland, 2009). Some of the most successful companies are those with significant intellectual capital but with relatively fewer physical assets, such as Google, Microsoft and Oracle (Yi and Davey, 2010).

With the increasing awareness of the importance of intellectual capital, many managers attempt to disclose the intellectual capital of their companies in the annual reports on a voluntary basis to reduce information asymmetry and improve transparency between management and the stakeholders (Holland, 2009; Vergauwen, Bollen and Oirbans, 2007; Guthrie and Petty, 2000). However, intellectual capital is difficult to measure, because there is no consensus to its measurement and acceptable accounting framework for its disclosure globally (Salman and Tayib, 2012; Yi and Davey, 2010; Lim and Dallimore, 2004). Thus, the intellectual capital disclosure pattern among companies, throughout the world, is limited and significantly differs.

In the past two decades, intellectual capital disclosure has increased tremendously which calls for researchers' interests in researching on the topic. Several studies have been conducted on intellectual capital disclosure in the developed countries, but minimal researches have been conducted in the developing countries. Examples of studies on intellectual capital disclosure in different countries are: China (Yi and Davey, 2010), Spain (Olivers, Gowthorpe, Kaperskaya and Perramon, 2008, Sri Lanka (Abeysekera and Guthrie, 2005), Oliveras, Rodgriques, and Craig 2006), USA (Abdolmohammadi, 2005), Australia (Guthrie and Petty, 2000), Canada (Bontis, 2003), Ireland (Bremann, 2001), India (Kamath, 2008), Italy

(Bozzolan, Favotto and Ricceri, 2003), Japan (Mavridis, 2004), Malaysia (Salamudin et al., 2010; Goh and Lim, 2004), New Zealand (Wong and Gardner, 2005), Singapore (Tan, Plowman and Hancock, 2007), Taiwan (Chen, Cheng and Hwang, 2005), UK (Willims, 2001). These studies provide evidence on the awareness and importance of intellectual capital disclosure on the sustainability of a reporting entity. However, to the best of the researchers' knowledge, no similar studies have been conducted on Nigerian.

The above submission indicates that minimal researches have been conducted in developing countries in general and Nigeria in particular. Therefore, this paper investigates intellectual capital disclosure practices of Nigerian companies. The paper is divided into seven parts; this is the introductory part. The second part is a review of related literature. The third delineates the research methodology. The fourth part presents the results. The fifth part is a discussion of findings, while the sixth and the seventh parts present the study conclusion and contribution.

Literature Review

Intellectual Capital

A standard definition of intellectual capital has not emerged. Intangible asset is typically described as good/asset without physical existence but has economic value (Edvinsson and Malone 1997; Berry 2004; Gerpoth, Thomas and Hoffman 2008). Intangibles are otherwise called Intellectual capital or knowledge asset (Lev, 2001). Until now, a standard definition of intellectual capital (IC) has not been arrived at because scholars define it in accordance with the way they perceive it (Meditinos, et al. 2011). It is against this background that Lev (2001) defines intellectual capital/assets as "a claim

to future benefit that does not have a physical or financial (a stock or a bond) embodiment." Some have defined it by its drivers. For example Gu and Lev (2001); Chan and Lakonishok (2001) and Stewart (1998) describe this set of assets as R&D, Advertising, IT and Human Resource. Pablos (2003) simply puts it as the difference between market value and book value. As plausible as these definitions are, it is discovered that no widely accepted definition of intellectual capital has emerged (Gerpoth et al. 2008). However, there is an agreement that IC covers three main capitals which are Human Capital (HC), Structural Capital (SC), and Relational Capital (RC) (Bontis, 1998; Verguven and Alem, 2005).

Human Capital (HC) is defined as the value of all the employees in the organization and the rewards that are attached to their utilization (Verguven and Alem, 2005). These include the skills, knowledge, experience, ability, competence and capability that employees take with them when they leave the organization (Roos, and Roos, 1997). Some group considered it as what people are owned from learning, experience and skill, while another group delineated it as human capability that is directly linked to the work (Al-Maani, and Jeradat, 2010). Although, organizations invest in the human capital that does not belong to the organization (Verguven and Alem, 2005) but owned by the employees (Roos, Roos, Dragonetti and Edvinsson, 1998), nevertheless it is a source of wealth for an organization (Bontis, 1999) and its ability to be innovative (Ahangar, 2011). Therefore, Human capital can be simply put as learning, training, experience, knowledge, capabilities, capacities, creativity, and core competencies of human resources present in an organization (Mahamad and Salman, 2011).

Structural Capital (SC) is the process, system, procedure and practice of organization used by the employees (Boisot, 2002; Ordonez de Pablos, 2004). This component is viewed by Maheran and Khairu (2009) as competitive intelligence, formulas, information systems, patents, policies, and others which resulted from the products or systems the company has created over time. Structural capital is the supportive infrastructure for human capital and unlike human capital, it is owned by the company which can be traded, reproduced and shared by, and within, the organization (Ahangar, 2011; Mahamad and Salman, 2011).

Relational Capital (RC) is defined as an intellectual capital developed, maintained and nurtured by an organization in order to sustain its external relationship that influences corporate performance (Eugstrom, Westnes and Westnes, 2003). Thus, it is the strength and networking of an organization through its customers and external factors that develop this important capital (Bontis, 1996; Stewart, 1997). Relational capital is sometimes called Customer capital.

Intellectual Capital Reporting In Nigeria

It is a known fact that the ability of a firm to create a rewarding value is directly drawn from its capability to generate income above its cost (Busacca and Maccarrone, 2007). This means that the firm's earning must be above the market price average. The firm's achievement of this earning above the market price falls on its capability to utilize its total resources which comprise of both tangible and intellectual capital (intangible) that are pool together (Barney, 1991; Firer and Williams 2003; Okwy and Christopher, 2010). Therefore, firm's financial reporting should include both tangible capital and intellectual capital (intangible) in order to

present the total resources that create value to the users of accounting information.

Nigeria issued its first accounting standards on intangible assets only in June, 2006 and the effective date started from December, 2006. Before then, Nigeria did not have accounting standard on intangible assets and did not adopt the International Accounting standard (IAS) 38. The release of Statement of Accounting Standard (SAS) number 22 by Nigerian Accounting Standard Board (NASB) in June, 2006 marks the beginning of reporting of intellectual capital by companies in the country. Nigerian Accounting Standard Board (NASB) is a regulatory body that was set up to handle the affairs of public listed companies in Nigeria specifically on matters that has to do with acceptable accounting principles. This body is in charge of issuance of accounting standards for compliance by companies in the preparation of publishable financial statements to guide informed decisions by users.

The NASB is a thirteen member body comprising organizations and establishments in both the public and private sectors of the Nigerian economy. Specifically, the Board issued SAS No 22 out of realization of the importance of intellectual capital in emerging economy (Olaofe, 2006) which the former system of accounting standards did not cover. This becomes imperative because most of the Nigerian companies' productive resources are averagely basically tangible and intangible in nature (Salman and Mahamad, 2011; Okwy and Christopher, 2010).

Prior Intellectual Capital Disclosure Researches

There are several studies conducted on intellectual capital disclosure. Some are based on intellectual capital management,

measurement and reporting in different countries and different sectors with different tools and applications. The commonly used methods by these researchers are content analysis and disclosure indices. For example such previous researchers are: Guthrie and Petty, 2000; Brennan, 2001; Abeysekera and Guthrie, 2005; Abdolmohammadi, 2005; Oliveras, et al., 2006, 2008; Schneider, 2006; Yi and Davey, 2010; White et al., 2010. Guthrie and Petty (2000) constructed 24 intellectual capital disclosure items to measure disclosure pattern of Australia companies. The results provide that there was a correlation between intellectual capital disclosure index and company performance. The results further reveal that there is no consistent framework for companies in Australia to disclose their intellectual capital. In the same line, Schneider (2006) supports the use of intellectual capital disclosure index as a measure of intellectual capital components/drivers. Their study was carried out on annual reports of 82 local government authorities in Zealand between 2004 and 2005. The study constructs 26 items as intellectual capital disclosure index to measure the disclosure level of the three categories.

In addition, White et al. (2010) constructed 78 items as intellectual capital disclosure index in which 27 items relate to employee, 14 items for customer, 15 items for process, 8 items for R&D while the remaining 15 items for strategy statement. The finding of the study from the regression analysis shows that the extent of ICD has a significant relationship with country and size of company.

Oliveras et al. (2008) examine intellectual capital disclosure of 12 Spain companies using content analysis with 28 items. The findings reveal that there is a

greater disclosure in the area of external capital than internal and human capital of the sample companies. Brennan (2001) examined 11 knowledge-based Irish listed companies using content analysis with 24 items of measurement. The study reveals that the intellectual capital disclosure level is low, and there is a significant difference between the market and book values of the assets of the sampled companies, except two companies.

Yi and Davey (2010) used disclosure index with 16 items to investigate the disclosure practice of Chinese (mainland) companies. It was revealed that intellectual capital disclosure of the sampled companies is not high. Abdolmohammadi (2005) examines intellectual disclosure practice of 500 fortune companies in UK, and submits that "new" disclosed intellectual capital than the "old" companies. The result further provides evidence that there is a significant relationship between intellectual capital disclosure and market capitalization of the sample companies.

This study adopts Yi and Davey (2010) by expanding IC item from 16 items to 17 times to measure the three categories of intellectual capital. Structural capital has five items; relational capital has seven while, human capital also has five items. It is also noted that many prior studies lack measures of quality of intellectual capital. This study attempts to address this in terms of the level of intellectual capital disclosure in the financial reports of 50 Nigerian companies.

Methodology

Data Source

The annual reports for 2010 financial year of the 50 Nigerian companies were used as sources of data in this study. The annual report is an important medium through

which managers commonly signal what is important (Abeysekera and Guthrie, 2005; Firer and Williams, 2005; April, Bosma and Deglon, 2003; Guthrie and Petty, 2000). It is a communication medium connecting a company with its stakeholders (Yi and Davey, 2010). The 50 top companies were selected based on price index report given by the Nigerian Stock Exchange (NSE) in their monthly report of July, 2011. All the companies used in this study were fully listed in the Nigerian Stock Exchange and cut across the sectors of the Nigerian economy. These companies comprise of Oil and Gas, Manufacturing and others, except banking industry whose financial information disclosure is different.

Content Analysis

The Intangible Asset Monitor developed by Sveiby (1997) replicated by Guthrie and Petty (2000) and modified by Guthrie et al. 1999 was used as a guide for the content analysis to capture and codify intellectual capital items disclosed by the sampled companies, but this study adopted Yi and Davey (2010) IC framework. Content Analysis involves codifying qualitative and quantitative information into pre-defined categories based on specific criteria in order to derive patterns in the presentation and reporting of information (Guthrie et al., 2004). Content analysis is a technique that is widely used in intellectual capital disclosure studies. For example: Yi and Davey, 2010; Oliveras, et al., 2008; Biesso and Kumar, 2007; Abeysekera and Guthrie, 2005; April et al. 2003; Bozzolan et al. 2003 and Brennan, 2001) have used this method to capture the level of voluntary intellectual capital disclosure by companies at different countries and different industry type and size.

Construction of the Intellectual Capital Disclosure Index

A disclosure index is "a qualitative-based instrument designed to measure a series of items whose score for the items, as aggregated, gives a surrogate score indicative of the level of disclosure in the specific context for which the index was devised" (Coy, 1995, p. 121). Several previous researchers have constructed and used disclosure indices to examine the voluntary disclosure of intellectual capital in annual reports. For example: Al-Mamum, 2009; Schneider, 2006; and Firer and Williams, 2005.

The construction of intellectual capital index was in three phases. The first phase was the listing of intellectual capital items according to their drivers/indicator in the annual reports of the sampled companies. There were thirty three items (human capital, 11 items, structural capital 12 and relational capital 10 items). Twenty four items (human capital 6 items, structural

capital, 9 items and relational capital, 9 items) were found drawing from previous literature (Abeysekera and Guthrie, 2005; Bozzolan et al., 2003; Guthrie and Petty, 2000). In order to simplify this study framework, similar items were merged into a single measure. For example, copyrights, trademarks and patents were combined under the heading of intellectual property; management philosophy and corporate culture combined under the heading of management philosophy/corporate culture; information system, information technology and networking under the heading of information system; education, vocational training under the heading of education/vocational training; work-related knowledge and work-related competencies under the heading work-related knowledge. The final intellectual capital categories and their indicators were shown in table 11.

Table I. Intellectual capital disclosure items based on the prior literature

Structural capital	Relational capital	Human capital
Patents	Brands	Know-how
Copyrights	Company names	Employees
Trademarks	Customers	Education qualification
Management philosophy	Customers' loyalty	Vocational qualification
Corporate culture	Distribution channels	Work-related knowledge
Management processes	Business collaborations	Work-related competencies
Information systems	Favourable contracts	Entrepreneurial spirit
Networking systems	Licensing agreements	
Financial relations		

Source: Guthrie et al., (1999); Brennan (2001)

Table II Intellectual capital disclosure items for this study

Structural capital	Relational capital	Human capital
Intellectual property	Brands	Employees
Management philosophy/	Customers	Education/Vocational qualification
Corporate culture		Work-related knowledge
Management processes	Distribution channels	Entrepreneurial spirit
Information systems	Business collaborations	Know-how
Financial relations	Licensing agreements	
	Franchising agreements	
	Customers' loyalty	

Source: Authors' adjustments

The weighting of importance was then assigned in accordance with the frequencies of intellectual capital disclosure in three main categories, which were structural capital 31percent, relational capital 40 percent and human capital 29 percent. To assign score to individual items in the annual reports of the sampled companies, four point scales were used. The quality criteria on a four point scale (0 to 3) were established from prior literature, e.g Cornier and Magnan (2000); Guthrie et al., (1999); Walden and Schwartz (1997). The four (4) point scales of intellectual capital disclosure were used in the following manner: 0 - Non disclosure, 1 - Narrative disclosure, 2 - Qualitative and 3 - Quantitative disclosures. The average score per item/driver was normalized to a scale of 0 to 1 for comparability (note 1).

Coding the Annual Reports

Full sentence, rather than phases, word and paragraph, were chosen as the unit of content analysis in this study. The reason for using sentences compared with phases, words or paragraphs is that individual words might have different meaning in different context, but when full sentence is taking the

meaning is much clearer and will not be difficult to code (Milne and Adler, 1999). In addition, the following rules were also adhered with strictly during the course of coding following the steps of Yi and Davey, 2010; Schneider and Samkin, 2008; Wong and Gardner, 2005.

- Only voluntary disclosure of intellectual capital were taking into consideration;
- Do not code graphs, picture or diagrams;
- Do not code if the concept is only implies

Results

Intellectual Capital Disclosure by items

The mean scores (note 1) for all items of disclosure are shown in table I, normalised to a scale of zero to one for comparison purposes. The top four items of disclosure were business collaboration, employees, customers and financial relations. The least disclosed items are management philosophy/corporate culture, work-related knowledge and customers' loyal items.

Table III *Disclosure items with their mean scores*

Items	Disclosure Score (0 to 1)
Business collaboration	0.79
Employees	0.76
Customers	0.61
Financial relations	0.47
Information system	0.46
Brand	0.45
Entrepreneurial spirit	0.37
Management processes	0.31
Intellectual property	0.30
Education/vocational training	0.29
Distribution channels	0.28
Know-how	0.27
Franchising agreements	0.19
Licensing agreements	0.18
Management philosophy/corporate culture	0.12
Work-related knowledge	0.09
Customers' loyalty	0.08

Source: Authors

Structural Capital Indicators

This category of intellectual capital is also internal capital. Its indicators disclosed were shown in table I. Information system was the most frequently reported structural capital item, with the highest mean score of (0.46) in this category, shown in table II.

Management philosophy/corporate culture and Intellectual property are least frequently reported items in the financial statements of Nigerian companies with mean score of 0.12 and 0.30.

Table IV Disclosure of performance of structural capital items

	Frequency					Mean score (0 to 1)
Structural capital	0	1	2	3	Total	
Intellectual property	29	6	5	10	21	0.30
Mgt philosophy/culture	32	18	n/a	n/a	18	0.12
Management process	3	47	n/a	n/a	47	0.31
Information system	20	10	0	20	30	0.46
Financial relation	11	15	16	8	39	0.47

Note: n = 50

Source: Authors

Relational Capital Indicators

This category of intellectual capital is also referred to as external capital. Items disclosed under this category were shown in table III. Customer was the most frequently reported item under this category, with a

mean score of 0.61. Customer loyalty was the least disclosed under this category with a mean score of 0.08.

Table V. Disclosure performance of Relational capital items

	Frequency					Mean score (0 to 1)
Relational capital	0	1	2	3	Total	
Brand	15	10	17	8	35	0.45
Customers	2	17	19	12	48	0.61
Customers' loyalty	38	12	n/a	n/a	12	0.08
Distribution channels	21	20	5	4	29	0.28
Business collaboration	5	1	15	29	45	0.79
Licensing agreement	34	8	5	3	16	0.18
Franchising agreement	28	10	7	5	22	0.19

Note: n = 50

Source: Author

Human Capital Indicators

This is the third category of intellectual capital and table IV presents items disclosed by the sampled Nigerian companies under this category. Employee item has the highest frequency (0.76) in this category, as well as

the highest reported by all the 50 companies. Work-related knowledge has the lowest mean score and reported by 12 companies.

Table VI. Disclosure performance Human capital items

	Frequency					Mean score (0 to 1)
Human capital	0	1	2	3	Total	
Employees	2	10	10	28	48	0.76
	22	16	12	0	28	Know-how 0.27
Education/vocational training	26	10	8	6	24	0.29
Work-related	40	6	4	0	10	0.09
Entrepreneurial spirit	15	12	23	0	35	0.37

Note: n = 50

Source: Authors

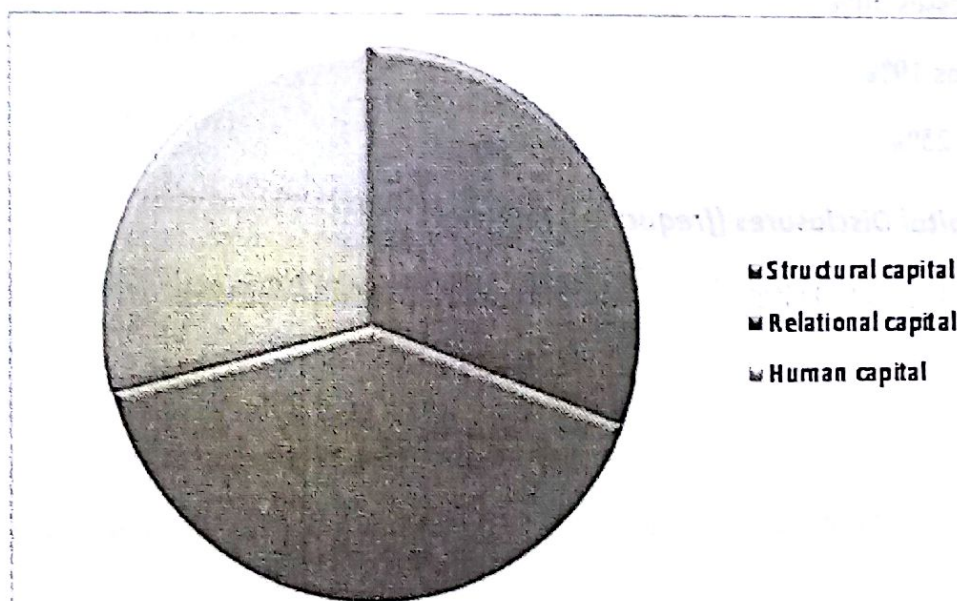
Extent and Quality of Intellectual Capital Disclosure by Companies

Extent

Figure 1 shows the extent of intellectual capital disclosure of the 50 companies in Nigeria. Relational capital was the highest reported IC category with almost half of the total disclosure scores (40 percent). Human capital was the least reported for IC disclosure (29 percent), while structural capital accounted for 31 percent of the total IC disclosure. Going by the intellectual capital disclosure performance within the categories, "management process" and "financial relations" accounted for 55 percent of the structural capital disclosure (figure 2), "customers" and "business collaboration" accounted for half of the

relational capital disclosure (figure 3), "employees" and entrepreneurial spirit accounted for over half of human capital disclosure (figure 4). With regard to structural capital disclosure, the most frequency number of items disclosed per company is 2.74 out of a possible 5. All the items under this IC category were reported by sampled companies except one company. As to relational capital disclosure, the most frequent number of items reported per company is 4.48 out of a maximum possible of 7. While the most frequently reported number of human capital is 2.78 out of a possible 5. With regard to the total intellectual capital disclosure the average number of items reported per company was 9.98 out of 17, that is 58.70%.

Figure i



Note: Structural capital 31%

Relational capital 40%

Human capital 29%

Figure 1 Intellectual capital disclosure by categories (frequency) (Bar chart)

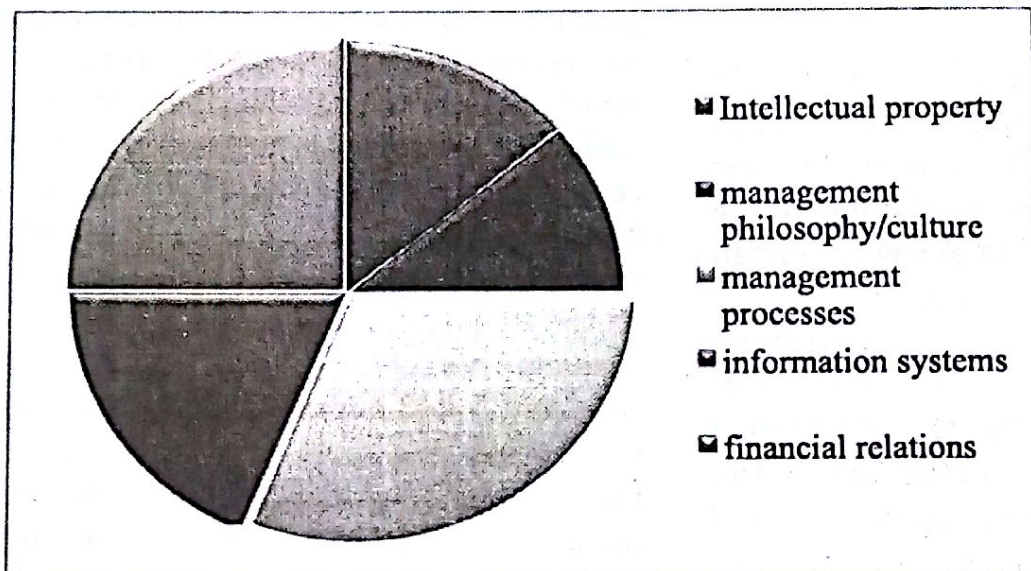


Figure ii

Note: Intellectual property 14%

Management philosophy/corporate culture 12%

Management processes 30%

Information systems 19%

Financial relations 25%

Figure ii Structural Capital Disclosures (frequency) Bar chart

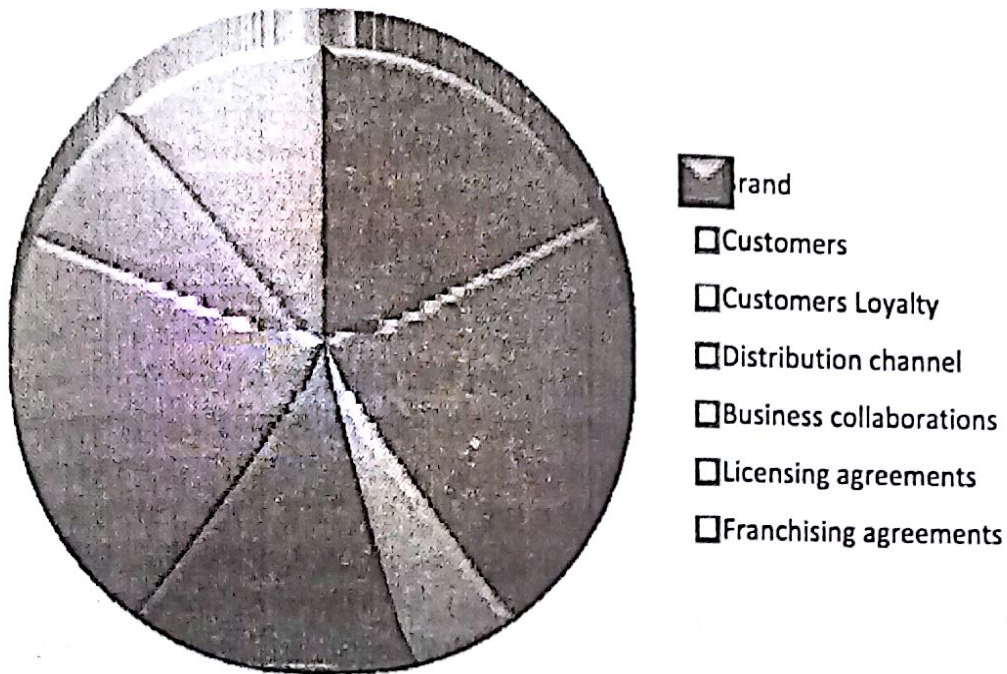


Figure iii

Note: Brand 17%

Customers 23%

Customers' loyalty 6%

Distribution channels 14%

Business collaborations 21%

Licensing agreements 8%

Franchising agreements 11%

Figure iii Relational Capital Disclosures (frequency bar chart)

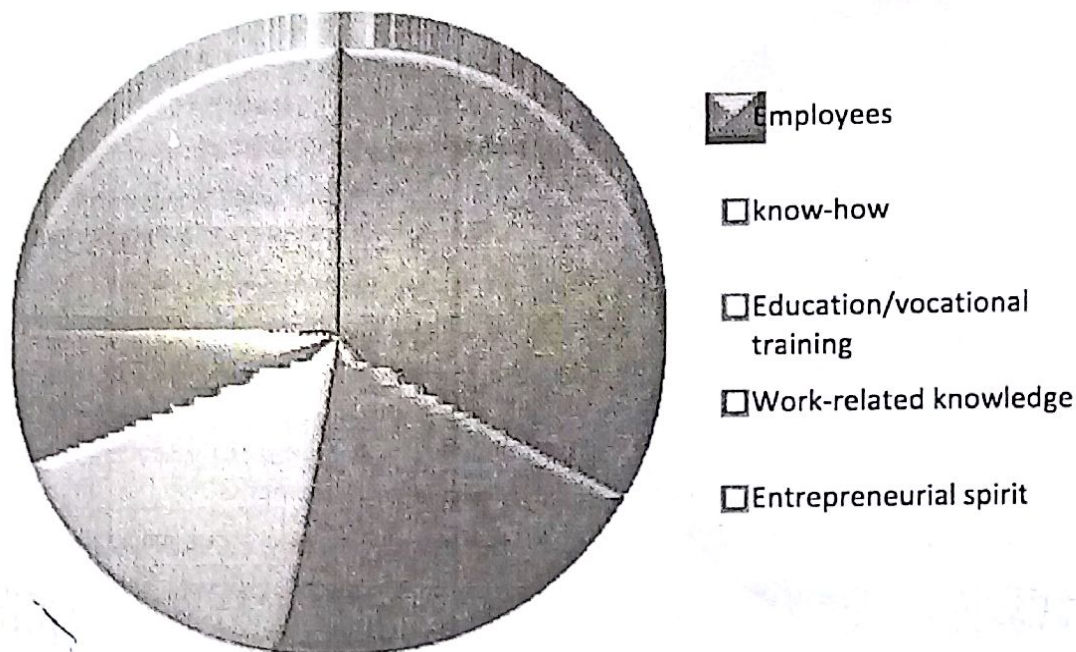


Figure iv

Note: Employees 33%

Know-how 19%

Education/vocational training 17%

Work-related knowledge 7%

Entrepreneurial spirit 24%

Figure iv Human capital disclosures frequency bar chart

4.2.2 Quality

The gap in disclosure quality between the three categories was 0.12 with scores of 0.42 for relational capital (the highest score) to 0.28 for structural capital (Table VII). Comparing the frequency data with the mean disclosure quality scores of the

sampled Nigerian companies, it shown that the high frequency of intellectual capital disclosure the higher the quality of disclosure. The relational capital has the highest IC disclosure frequency as well as the high level of quality of disclosure.

Table VII. Comparing IC disclosure frequency and mean disclosure quality scores

Category	Structural capital (5 items)	Relational capital (7 items)	Human capital (5 items)
Mean quality score (0 to 1)	0.28	0.42	0.30
Frequency of Disclosure	0.31	0.40	0.29

Table VIII: Medium of Disclosing Intellectual Capital

Medium of Reporting	No of information reported	Percentage
Statement of financial position	3	17.60
Income statement	4	23.50
Notes to the Accounts	5	29.50
Directors' Report	3	17.60
Chairman's Report	2	11.80
Total	17	100

Source: Authors

Table VIII: Shows that 29.50% of the total disclosed Intellectual Asset information is reported in the notes to financial statements and less than 12% is reported through chairman's report which is informal. 41.10% is reported formally through income statement and statement of the financial position (balance sheet) of the companies.

Discussion

Quality of Intellectual Capital Disclosure

This research provides that the level of intellectual capital disclosure by 50 Nigerian companies is low since the highest quality score among the categories of disclosure for all the companies in the sample was 0.42 less than 50 percent and the highest frequency was 0.40 still less than 50 percent. The medium of disclosure of the intellectual capital items by most of the sampled companies were in narrative form presented in the notes to the account in the

financial statements. These findings are not unexpected as there is no currently established and generally accepted framework to quantify intellectual capital information in Nigeria, and any quantification might give rise to inaccurate meaning (Abeysekera and Guthrie, 2005; Guthrie et al., 1999). The deficiency of a quantitative expression of intellectual capital items indicates that Nigerian companies are still at the stage of simply understanding where the real value of the company lies, rather than qualifying the drivers/indicators (Guthrie and Petty, 2000). The findings of this study are consistent with the following previous research works. Brennan (2001) conducts a study on knowledge based Irish listed companies and finds out that the intellectual capital disclosure of sampled companies were low despite the fact that their production resources were intangible/knowledge or intellectual capital based. The same thing goes for the work of Pablos (2005). Pablos (2005)

examines Indian companies and concludes that Indian companies fail to report intellectual capital appropriately, because their intellectual reports were merely narrative. In addition to this is the research work of (Abeysekera, 2007). Abeysekera (2007) examines intellectual capital disclosure of developed and developing countries and finds out that intellectual capital disclosure of most of the companies in developing were very low compare to the developed countries. He conducted a study on Sri Lanka companies. The study reveals that Sri Lankan companies do not have framework for intellectual capital disclosure. Lim and Dallimore (2004) conducted a study on 36 top management participants with at least 20 years of experience. The study found out that the management appeared to show a better understanding than the investors on human capital indicators of value.

In addition, although the research findings indicate that all the companies reported on some aspects of intellectual capital, the extent and quality of disclosure varied greatly. The drivers of intellectual capital disclosed by any individual company, in general, were haphazardly distributed in various parts of the annual report. This suggests that there is no systematic way of reporting IC for Nigerian companies because there is no accounting standard on IC disclosure in Nigeria except SAS 22 on research and development. No accounting standard on disclosure of other internally developed IC. Therefore, companies in Nigeria chose any method convenient to disclose their IC information. More than half of the companies in the sampled disclosed information on 7 items to 16 items out of 17 items. This level of disclosure shows there is a clear awareness of the importance of

intellectual capital disclosure. The overall disclosure quality score is not high, but there is an indication that the companies have at least a modest commitment in communicating their intellectual capital information to their stakeholders (Guthrie and Petty, 2000). In summary the overall ICD of the sampled companies is above average 58.70%, based on 17 items, the sampled companies disclosed 9.98 out of 17 items in their annual reports.

Conclusion

Going by the findings, most of the companies that have high disclosure items are pharmaceutical companies Fidson, Evan and Pharma-Deko and emerging companies (Tripple, M-tech communication and Grief. Companies with lowest scores are manufacturing companies (Avon Crown cap and flexible packaging). There is need for improvement for the two groups (high scores and low scores) to keep pace with the global world in term of their intellectual capital disclosure. Investors would assess each company by their disclosure of financial information useful for their rational decisions (Okwy and Christopher, 2010); likewise their share value will be assessed in capital market by their disclosure of financial information. It is suggested that individual company should disclosure what is signally important to their stakeholders at the same time with what will keep them competitive in the market.

Contribution of the Study

This study is an exploratory research regarding intellectual capital disclosure by 50 Nigerian companies. In this regards this study fills a research gap in the area of intellectual capital disclosure in developing countries generally, and Nigeria in particular. Secondly, this study examines both the extent

and quality of intellectual capital disclosure by constructing an intellectual capital disclosure index while many of the previous studies in the field only examined the extent of intellectual capital disclosure. This study can be replicated by other researchers in other developing countries.

Future research can extend the scope by expanding the sample size beyond 50

companies, and financial institutions that are excluded in this study can be examined separately to investigate their intellectual capital disclosure pattern too. In addition, a longitudinal study could be conducted for capturing the trend of reporting practices of intellectual capital reporting during different periods.

Note

1 "Mean score" is a quality measure for the disclosure of intellectual capital items. Calculation for example: Business

$$\text{collaboration: } 0.79 = (0*5) + (1*1) + (2*15) + (3*29)/3*50.$$

References

- Abdolmohammadi, M. J. (2005). Intellectual capital disclosure and market capitalization. *Intellectual Capital*, 6 (3), 397-416.
- Abeysekera, I. & Guthrie, J. (2005). An empirical investigation of annual reporting trends of intellectual capital in Sri Lanka, *Critical Perspective on Accounting*, 16(3), 151-163.
- Abeysekera, I. (2007). Intellectual capital reporting between a developing and developed nation: *Journal of Intellectual Capital*, 8(2), 329-345.
- Ahangar, R. G. (2011). The relationship between intellectual capital and financial performance: An empirical investigation in an Iranian company. *African Journal of Business Management*, 5(1), 88-95.
- Al-Ma'ani, A. I., & Jeradat, N. M. (2010). Impact of Human Capital on the organization Performance. *Interdisciplinary Journal of Contemporary Research Business*, 2(4), 63-73.
- Al-Mamun, S. A. (2009) Human Resource Accounting Disclosure of Bangladeshi Companies and Its Association with Corporate Characteristics: *BRAC University Journal*, 6(1), 35-43.
- April, K. A., Bosman, P., & Deglon, D. A. (2003). Intellectual capital measurement and reporting: establishing a practice in S.A mining. *Journal of Intellectual Capital*, 4(2), 165-180
- Amir, E., and B. Lev. (1996). 'Value-relevance of nonfinancial information: The Wireless communications industry'. *Journal of Accounting and Economics* 22 (1-3): 3-30
- Barney, B. J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.
- Berry, J. (2004). *Tangible Strategies for Intangible Assets*. McGraw-Hill, New York, NY.
- Boesso, G., & Kumar, K. (2007). Drivers of corporate voluntary disclosure. *Accounting, Auditing & Accountability Journal*, 20 (2), 269-296.
- Boisot, M. (2002). The creation and sharing of knowledge. In C. W. Choo & N.
- Bontis, N. (2003). Intellectual capital disclosure in Canadian corporations. *Journal of Human Resource Costing & Accounting*, 7(1), 9-20.
- Bontis, N. (1996). There's a price on your head: managing intellectual capital strategically. *Business Quarterly*, 60(4), 40-47.
- Bontis, N. (1998). Intellectual capital: an exploratory study that develops measures and models. *Journal of Management Decision*, 36(2), 63-76.
- Bontis, N. (1999). Managing organisational knowledge by diagnosing intellectual capital: framing and advancing the state of the field. *International Journal of Technology Management*, 18(5), 433-462.
- Bozzonlan, S. Favotto, F. & Ricceri, F. (2003). Italian annual intellectual capital disclosure: an empirical analysis, *Journal of Intellectual Capital*, 44, 543-558.
- Brennan, N. (2001). Reporting intellectual capital. *Accounting, Auditing & Accountability Journal*, 14 (4), 423-436.
- Busacca, G., A. & Maccarrone, P. (2007). IFRSs and accounting for intangible assets: the Telecom Italia case. *Journal of Intellectual Capital*, 8(2), 306-328.
- Bukh, P. N. (2003), The relevance of Intellectual disclosure: a paradox? *Accounting, Auditing & Accountability Journal*, 16 (1) 49-56.
- Calisir, F., Gumussoy, C. A., Bayraktaroglu, A. & Denuz, E. (2010). Intellectual capital in the quoted Turkish ITC sector. *Journal of Intellectual Capital*, 11(4), 537-553.
- Chan, L., K. Lakanishok, J. & Sougiannis, T. (2001). The stock Market valuation of Research and Development Expenditures. *Journal of Finance*, LVI (6), 2431-2456.
- Chen, M., Cheng, S., & 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.
- Cormier, D. & Magnan, M. (2000). Corporate environmental disclosure strategies: determinants, costs and benefits, *Journal of Accounting, Auditing and Finance*, 4, 429-451.
- Coy, D. V. (1996). A public accounting index for annual reporting by NZ Universities, Ph.D thesis, University of Waikato, Hamilton.
- Edvinsson, L., & Malone, M. (1997). *Intellectual Capital: Realizing Your Company's true Value*

- by finding its Hidden Brainpower. *Journal of Human Resource Costing Accounting*, 4 (1), 21-33.
- Engstrom, T. E., Westnes, P., & Westnes, S. F. (2003). Evaluating intellectual capital in the hotel industry. *Journal of Intellectual Capital*, 4 (3), 287-303.
- Firer, S. & Williams, S. M. (2005). Firm ownership structure and intellectual capital disclosures, *SA Journal of Accounting Research*, 19(1), 1-18.
- Gerpoth, T., J. Thomas, S., E. & Hoffman, A., P. (2008). Intangible asset disclosure in the telecommunications industry. *Journal of Intellectual Capital*, 9(1), 37-61.
- Goh, P. C. & Lim, K. P. (2004). Disclosing Intellectual Capital in Company Annual Reports: Evidence from Malaysia. *Journal of Intellectual Capital*, 5(3), 500-510.
- Guthrie, J. & Petty, R. (2000). Intellectual capital literature review: Measurement, reporting and management. *Journal of intellectual Capital*, 1 (2), 155-176.
- Guthrie, J. (2001). The management, measurement and the reporting of intellectual capital. *Journal of Intellectual Capital*, 2 (1), 27-41.
- Guthrie, J., Petty, R. & Wells, R. (1999). There is no Accounting for intellectual capital in Australia: a review of annual reporting practices and internal measurement of intangibles, presented in OECD Symposium on Measuring and reporting of Intellectual capital, Amsterdam.
- Holland, J. (2009). Looking behind the veil: Invisible Corporate intangibles, stories, structure and the contextual information content of disclosure. *Qualitative Research in financial market*, 1 (3), 152-187.
- Kamath, B. (2008). Intellectual capital disclosure in India: content analysis of 'Teck' firms, *Journal of Human Resource Costing and Accounting*, 12(3), 213-224.
- Lev, B. (2001). *Intangibles: Management, Measurement and Reporting*: The Brookings Institution Press, Washington, DC.
- Lim, L. K. & Dallimore, P. (2004). Intellectual Capital: Management Attitudes in Service Industries. *Journal of Intellectual Capital* 5(1), 181-194.
- Maditinos, D., Chatzoudes, D., Tsairidis, C. & Theriou, G. (2011). The impact of intellectual capital on firms' market value and financial performance. *Journal of Intellectual Capital*, 12(1), 132-151.
- Mahamad, T. & Salman, R. T. (2011). Intellectual capital reporting in Nigeria: A way forward. Paper presented I 2nd AIBUMA Conference on August, in Nairobi, Kenya. (www.aibuma2011_submission_33pdf)
- Maheran, N., M. & Khairu, A., I. (2009). Intellectual capital efficiency and firm's performance study of Malaysian financial sectors. *International Journal of Economics and Finance*, 1(2), 206-212.
- Mavidis, D.G. (2004). The intellectual capital performance on the Japanese banking sector, *Journal of Intellectual Capital*, 5(1), 96-123
- Milnes, M. G., & Adler, R. W. (1999). Exploring the reliability of social and environmental disclosures content analysis, *Accounting, Auditing & Accountability Journal*, 12(2), 237-256.
- Okwy, P., O & Christopher, C., O. (2010). Human capital Accounting and its relevance to Stock Investment Decisions in Nigeria. *European Journal of Economics, Finance and Administrative Sciences*, 21, 64-76.
- Olaofe, O. (2006) NASB Releases Two New Accounting Standards. Retrieved on 25 February, 2011 from <http://www.ngex.com/business/public/newsinfo.php?nid=14>
- Oliveras, L., L. Rodrigues, L. & Craig, R. (2006). Firm-specific determinants of intangibles reporting: evidence from the Portuguese Stock Market. *Journal of Human Resources Costing and Accounting*, 10(1), 11-33.
- Olivers, E., Gowthorpe, C., Kasperskaya, Y., & Perramon, J. (2008). Reporting Intellectual Capital in Spain. *Corporate Communication An International Journal*, 13 (2), 168- 181.
- Ordonez de Pablos, P. (2004). Measuring and reporting structural capital: Lessons from European learning firm. *Journal of Intellectual Capital*, 5(4), 629-647.
- Pablo, P. (2003). Intellectual Capital Reporting in Spain: a comparative view. *Journal of Intellectual Capital* 4(1), 61-81.
- Pablos, P. (2005). Intellectual capital Reports in India: Lessons from a case study. *Journal of Intellectual Capital*, 6(1), 141-149.

- Roos, G. & Roos, J. (1997). Measuring your company's intellectual performance. *Long Range Planning*, 30(3) 413-426.
- Roos, J., Roos, G., Dragonetti, N. C., & Edvinsson, L. (1998). *Intellectual Capital: Navigating in the New Business Landscape*. New York: New York University Press
- Salamudin, N., Bakar, R., Ibrahim, M. K., & Hassan, F. H. (2010). Intangible assets valuation in the Malaysian capital market. 11 (3), 391-406.
- Salman, R. T & Mahamad, T. (2011). The relationship between Intellectual Capital Components and Corporate Performance in Nigeria: A Literature Review. Paper presented in the 9th Asian Academy Conference in Penang, Malaysia, October, 607-614.
- Salman, R. T & Tayib, M. (2012). Intellectual Capital Measurement Tools, *International Journal on Social Science Economics & Art*, 2(2), 19-26.
- Schneider, A. (2006). Intellectual capital reporting by the New Zealand local government sector. A thesis submitted in fulfilment of the requirements for the degree of Master of Management Studies in accounting, University of Waikato, Hamilton, 1-216.
- Schneider, A. & Samkin, G. (2008). Intellectual capital reporting by the New Zealand local government sector, *Journal of Intellectual Capital*, 9(3), 456-486.
- Stewart, T. (1997), *Intellectual Capital: The New Wealth of Nations*: Doubleday Dell Publishing Group, New York, NY.
- Stewart, T. (1998). The e-business tidal wave: perspectives on business in cyberspace [Electronic Version], *Delitte and Touche* Retrieved March 23, 2011 from <http://www.solveinteractive.com/kc/eBusTidalWave.pdf>.
- Sveiby, K. E. (1997). The Intangible Assets Monitor. *Journal of Human Resource Costing and Accounting*, 2(1), 73-97.
- Tan, H. P., Plowman, D., & Hancock, P. (2007). Intellectual capital and financial returns of companies. 8 (1), 76-95.
- Vergauwen, P., Bollen, L., & Oirbans, E. (2007). Intellectual capital disclosure and intangible value drivers: an empirical study. *Management Decision*, 45 (7), 1163-1180.
- Vergauwen, P. G., & Alem, F. J. (2005). Annual report IC disclosures in The Netherlands, France and Germany. *Journal of Intellectual Capital*, 6 (1), 80-104.
- Walden, D. & Schwartz, B. N. (1997). Environmental disclosures and public policy pressures, *Journal of Accounting and Public Policy*, 16, 125-154
- White, G, Leg, A. & Tower, G. (2010). Drivers of Voluntary Intellectual Capital Disclosure in listed biotechnology companies. *Journal of Intellectual Capital*, 8(3), 517-537.
- Williams, S. M. (2001). Is Intellectual capital performance and disclosure Practices Related? *Journal of Intellectual Capital*, 2(3), 192-203.
- Wong, M & Gardner, C. (2005). Intellectual capital disclosure: New Zealand evidence, conference paper presented at the AFFANZ 2005 conference, Melbourne.
- Yi, A. & Davey, H. (2010). Intellectual capital disclosure in Chinese (mainland) companies. *Journal of Intellectual Capital*, 11(3), 326-347.