
Intellectual Capital and Financial Performance of deposit money banks in Nigeria

¹Ese Bassey Nsentip,²Dorathy Christopher Akpan ,³ Affiong Otung and Mfon U Etuk

Department of Accounting

Akwa Ibom State University, Obio Akpa Campus

Corresponding Author's Email: ensentip@gmail.com

DOI: 10.56201/jafm.v10.no12.2024.pg190.207

Abstract

The competitive environment has ignited a shift in the mode of operations of financial institutions especially banks, making it to become one of the most knowledge-based industry. A vital component in this industry currently, is the knowledge capital also called Intellectual Capital. This paper examined the influence of intellectual capital on financial performance of deposit money banks in Nigeria. The main objective of this study was to examine the influence of intellectual capital on the performance of deposit money banks in Nigeria. The study adopted ex-post facto design this was because the study relied on previously generated data The population of the study was the fourteen (14) Deposit money banks listed on the Nigerian Stock Exchange as at 2022, of which Six banks were purposively selected The secondary source data was employed covering fifteen (15) years (2007-2021). The study also employed a descriptive statistic and regression analysis was used to test the two hypotheses. The result of the findings of hypotheses one showed that with t.cal of -0.545 it indicated that there is no significant impact of relational capital efficiency on the performance of deposit banks in Nigeria. Also, based on the decision rule of hypotheses two the result indicated that the null hypotheses two was rejected with t.cal. of 3.721 thereby implying that there is a significant influence of human capital efficiency on performance of deposit money banks in Nigeria. They study concluded that intellectual capital influences performance of deposit money banks in Nigeria. It was therefore recommended that bank should maintain equilibrium in their investment in intellectual capital components which include human capital and relational capital. They should also initiate strategies that will guarantee continued growth in performance.

Keywords: *Intellectual capital, Performance, and Relational capital*

1.0 Introduction

Most economies today are being driven by innovation, technology and information, which was not the case few decades back when machines were the drivers of the economy. These two eras have been differentiated by their mode of operations and resources. The value of firms in the machine era was determined by plants, machinery, materials and equipment, while knowledge, ability, skills, experience and employee attitudes form the current era. In the current era, intellectual capital is a significant asset against the belief of the previous eras that land, labour and capital are the main determinants of economic activities. (Ahangar, 2011).

The competitive environment has ignited a shift in the mode of operations of financial institutions especially banks, making it to become one of the most knowledge-based industry. A vital component in this industry currently, is the knowledge capital also called Intellectual

Capital (IC). Intellectual capital plays a crucial role in advancing the banking industry. Historically, banking began in Nigeria during the 19th century, in which the Bank for British West Africa was set up in Lagos in 1883. The Nigerian banking sector has undergone several reforms in previous years. Despite the reforms, it has not performed optimally (Bassey and Tapang, 2012). The cause of the abysmal performance is usually attributed to poor framework, inadequate financing, poor internal control systems and corporate governance abuses. The constant collapse of banks has also been attributed to the predominance of managers who had no university education (Abel and Deitz, 2015). The banking industry in Nigeria has begun to prioritize the training of its employees on a very regular basis. At the emergence of technology in the Nigerian Banking sector, most operators did not embrace it while some did. Those that embraced technology in their operations have recorded significant growth over the years, thus causing others to follow suit. A key indicator of this change is the dominance of trading activities at the Nigeria Exchange Group (NEG) by banks who embraced technology as an offshoot of intellectual capital.

Though, some old generation banks report high book values of their assets, most of the new generation banks still post higher and better financial performance figures and better services than the former. Also, at the Nigerian Stock Exchange, the rate of revenue generated by these new generation banks as well as their market capitalization has steadily increased and remained superior to those of the old generation banks because the new generation banks invest more in their human asset and provide better incentives that will motivate them to work harder and put in their best (Ekwe, 2014). Of all the factors of production, labour is the most important, which constitute the human asset. Labour means choosing the right people with good character without sentiment. People with competent and right character are great assets to any organization as they enhance productivity and boost performance. They put in their best to achieve success as long as they are well motivated. A clarification on the cause of the variation in trend needs to be empirically analyzed.

Statement of the Problem

Empirical studies on the challenges of business firms have been primarily on accounting systems, asset utilization and regulations without any emphasis on those who operate the systems, which is a core function of intellectual capital in a business entity. Employees are often regarded as the most important assets of an entity, yet they are excluded from the financial statements.

The functionality of any system is dependent on its operators. No corrupt practices are carried out in a system without human support. The level of integrity and motivation of employees determine their productivity and performance. An information centered economy is determined by intellectual asset, but its role in an organization's sustainability is often neglected by management, especially in the deposit money banks in Nigeria. The financial statement should be reviewed and structured in a way that it measures investment in intellectual capital as an asset and not expenses, and include it in the statement of financial position because intellectual capital is the main driver of any economy. Thus, the research output, recommendations and implementation thereafter still leave the Deposit Money Banks with little or no reduction in the level of crises. This study is in furtherance of this need.

Objectives of the Study

The main objective of this study was to examine the influence of intellectual capital on the performance of deposit money banks in Nigeria, while the specific objectives were to;

- i. evaluate the influence of relational capital efficiency on the performance of deposit money banks in Nigeria
- ii. examine the influence of human capital efficiency on the performance of deposit money banks in Nigeria
investigate the influence of intellectual capital efficiency on the performance of deposit money banks in Nigeria.

2.0 Review of related literature

Conceptual review

The concepts relevant in this study are discussed in the following order: Intellectual capital, human capital, relational capital and financial performance.

Intellectual Capital

Intellectual capital has been defined by various ways by different author based on their individual understanding. Engstrom et.al 2003 agreed that there is no generally acceptable definition of intellectual capital. Nevertheless, some efforts have been made at providing more definitions of intellectual capital. Ahangar (2011) understood intellectual capital as inventions, ideas, general knowledge, design approaches, computer programs and publications. Intellectual capital can be defined as skills and knowledge acquired by people throughout their period on earth and which could be used for production of goods and services. However intellectual capital is a collective intangible assets that allow an enterprise to function. He also sees an enterprise as the sum of its tangible asset and intangible assets as expressed in the formula below:

$$\text{Enterprise} = \text{Tangible Assets} + \text{Intellectual Capital}$$

Human capital

The primary sub component of an organization's human capital is its employees' skill sets, depth of knowledge, and extensiveness of experience. Human resources can be thought of as the living and thinking part of intellectual capital resources (Roos *et al.*, 2005). However, human capital is the heart of intellectual capital as it relates to employee's knowledge, competence, skills, capability and innovation (Khalique *et al.*, 2011). Employees also generate intellectual capital through their competence, attitude and intellectual agility (Roos *et al.*, 2005; Bontis *et al.*, 2000). Also, human capital includes the competencies of employees, their know-how in certain fields that are important to the success of enterprise and their aptitudes and attitudes. Employee loyalty, motivation and flexibility will often be significant factor too, because a firm's expertise and experience pool develop over time.

Furthermore, Virkus (2014) defined human asset as health, abilities, knowledge and motivation which offer satisfaction when possessed. Human capital refers to the competence of the employees in creating both material and immaterial assets via their perceptions and technical know-how. Human capital as the capability, knowhow, sensitivity, attitudes and expertise of the workforce. It is seen as the productive capacity of the labour force. According to John (2018), human capital has eighteen (18) elements and they are system thinking, know how, tacit knowledge, situation knowledge, health, design, creativity, social capital, Social status, Cultural Capital, relational capital, leadership, research, diligence, strategic thinking, decision making, problem solving and personal resilience.

Relational capital

Relational capital is mainly centered on the relationship that exist among organizations and their customers; that is, how organizations manage their friendly disposition towards their

various stakeholders (goodwill). John (2018) defined relational capital as a type of intangible asset established by a business based on its reputation and relationship with stakeholders. It is described as the investment with the external stakeholders such as suppliers, partners, customers, clients, brand names, trademarks, reputation among others. Relational capital is one of the most important components of intellectual capital as it is based on customer satisfaction, loyalty and engagement. It is pointed out based on knowledge embedded in the marketing channels and customer relations with organizations that develop in conducting business (Bontis *et al.*, 2000). However, relational capital is mainly based on the relationship between the organization and its customers (Shaari *et al.*, 2010).

A good relationship with customers and other stakeholders is very important for the success of an organization because customers buy products or services from the organization (Roos *et al.*, 2005). According to Tai-Ning *et al.*, (2011) customers are the main source of revenue generation for organizations and it is very important for them to satisfy their customers' needs by creating incentives to motivate them and enable them enjoy the goodwill of the organization. Also, John (2018) explained that, relational capital is a type of intangible asset established by a business based on its reputation and relationship with stakeholders. The following are the various components of relational capital: competitor capital, community capital, supplier capital, regulatory capital, and alliance capital (Akpinar, 2000). John (2017) also gave elements of relational capital to include; brands, goodwill, employer branding, stakeholders, customer relationship, partners and contacts.

Financial performance

Performance is a global concept as it is examination of all sectors of the economy. The definition of performance varies from organizations to organizations and their various applications as they tend to focus more on the performance indicator(s) that suit strategic organization goals. Ratti, (2012) explained that performance is the process of achieving the expected results due to functioning in a stipulated manner and regulated framework. An organization is said to be performing well when it is meeting its targets and achieving set goals and objectives. Performance can also be classified into strategic performance, individual performance, operational performance and firm-specific performance. Richard *et al.*, (2009) classified performance into three (3) as explained below namely; product market performance, total shareholders return performance and financial performance. Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. The term is also used as a general measure of a firm's overall financial health over a given period. Analysts and investors use financial performance to compare similar firms across the same industry or to compare industries or sectors in aggregate. There are several ways to measure financial performance, but all measures should be taken in aggregate. Line items such as revenue from operations, operating income or cash flows from operations can be used, as well as total unit sales.

Return on asset (ROA)

Profitability shows the extent to which a firm's income exceed its cost. Return on asset is an indicator of how cost-effective a company is in relation to its total assets. It gives an idea as to how efficient the management uses assets to generate earnings. It is the ratio of the net income (less preference dividends) divided by book value of total assets as reported in the annual reports; (Firer and Williams, 2003; Chen *et al.*, 2005). It is expressed mathematically as:

$$ROA = \frac{\text{Total Income}}{\text{Total Assets}} \times 100$$

Theoretical framework

Human Capital theory by Schultz (1981) was the most related theory used in the study

Human capital theory

This theory was propounded by Schultz (1981). The theory emphasizes the correlation between investment in education and training and income differentials. It assumes the rationality of firms and individuals in committing resources to education. Another assumption of the theory is the nexus between education, productivity and earnings growth. Human Capital theory states that increase in human capital standard will increase productivity. The proponents equated the increase in productivity to the present value of the investment in education and trainings. Mincer (1958) and Becker (1964) introduced the concept of provision for general and specific training into human resource theory. They explained that general training that are not generic in nature enhance the skills of the employees.

On the other hand, specific trainings are specialized trainings that give employees skill set that are only relevant to a specific employer. Specific training can be offered by employers as a production enhancing mechanism. The proponent of the theory asserts that cost of education and training are investment like tangible assets which ought to be capitalized and reflected in the firm's audited accounts as investment in recruitment, training and development. This theory is applicable to this research as it pushes for the inclusion of intellectual capital in the financial statements considering its contribution to firm performance. Human capital theory is relevant in this work because ROA is dependent on VAIC as presented in the model, it means that increase in VAIC will bring increase in performance (ROA).

Empirical review

Blessed (2022) investigated intellectual capital performance in Nigeria drawing samples from listed non-finance firms on the floor of the Nigerian Exchange Group market. While performance proxied by return on asset is the dependent variable, the independent variables adopted for this study includes structural capital efficiency, capital employed efficiency, human capital efficiency and value-added intellectual capital coefficient. However, it was concluded that structural capital efficiency, capital employed efficiency and value-added intellectual coefficient significantly improve firm performance. Hossain, Salam, Reza & Hasan (2022) examined the impact of intellectual capital and its elements (e.g., human capital, structural capital, and capital employed) on the profitability, market value, and productivity of all 30 publicly traded banks listed on the Dhaka Stock Exchange in Bangladesh. The study found that banks with higher intellectual capital generated higher profits but lowered productivity; however, intellectual capital did not contribute to enhancing market value. The findings of the study suggest that the listed banks in Bangladesh failed to exploit intellectual capital well enough to gain a competitive advantage.

Opazo and Gonzalez (2021) analysed the direct impacts on financial performance and the added value of production in family businesses, considering the efficiency of intellectual capital as determining variables. A comparative analysis between family businesses (FB) and nonfamily businesses (NFB) is proposed to explore significant differences in the impacts on financial performance and added value of companies, through multivariate techniques. It contributed to the literature on the family business, and its performance from an analytical framework that incorporates the theory of intellectual capital and the measurement of its impact. The findings showed that the value-added coefficient of intellectual capital (VAICTM) is a determining factor in the financial performance of companies and, to a greater extent, in the FB than in their NFB counterparts.

Adugna, Kumar and Umamaheswari (2021) examined the effect of intellectual capital on the financial performance of Ethiopian bank and insurance companies. Specifically, this study examined the effect of VAIC (HCE, SCE, CEE), liquidity, leverage and size on the financial performance of Ethiopian bank and insurance companies. To investigate the effect of such factors, panel data were used from national bank of Ethiopia and from private banks and insurance companies audited annual report. Rezende & Silva (2021) discussed Value Creation based on the VAIC™ method and as a research field the companies that are part of the B3 (BM&FBOVESPA) Corporate Sustainability Index (ISE) portfolio. As a first approach, we selected the year 2016 after ten years of ISE history. The VAIC™ components were recovered and computed from the International Financial Reporting Standards ended in December 31, 2015. The hypotheses allowed to affirm the following: (i) there is interdependence among Invested Financial Capital, Intellectual Capital, and Value Creation; (ii) there are dimensions of Value Creation capable of differentiating and clustering the observations; and (iii) the allocative efficiency of companies can vary according to clusters. The main limitation is the size of the population/final sample - 29 corporations. The implications refer to the reinforcement of the theoretical existence of Value Creation based simultaneously on tangible and intangible assets and the possibility to categorize companies to broaden the understanding of the bases for appreciation of the value and pricing of assets traded on the stock exchange platforms.

Onyekwelu *et al.*, (2017) assessed the “Effect of Intellectual Capital on Financial Performance of Banks in Nigeria”. The results of their findings revealed that banks are statistically different in both intellectual capital and financial performance indicators, therefore, banks with high intellectual capital showed a higher financial performance. They recommended that banks should invest vigorously in the development of their human capital since human beings are key drivers of firm's performance. They also recommended that banks should provide necessary infrastructures needed to achieve a stable human capital in the system.

3.0 METHODOLOGY

The research design that was adopted in this study is the ex-post facto design. This design relied on previously generated data that were used in exploring intellectual capital and performance of deposit money banks in Nigeria. The population of the study was the fourteen (14) Deposit money banks listed on the Nigerian Stock Exchange as at 2022. Six banks were purposively selected which were; First Bank Plc., Zenith Bank Plc., First City Monument Bank [FCMB], Guaranty Trust Bank [GTB], Access Bank and Union Bank. The secondary source data was employed covering fifteen (15) years (2007-2021).

Description of variables

The conceptual framework that specifies the variables and their inter connectedness is presented in Figure 3.1.

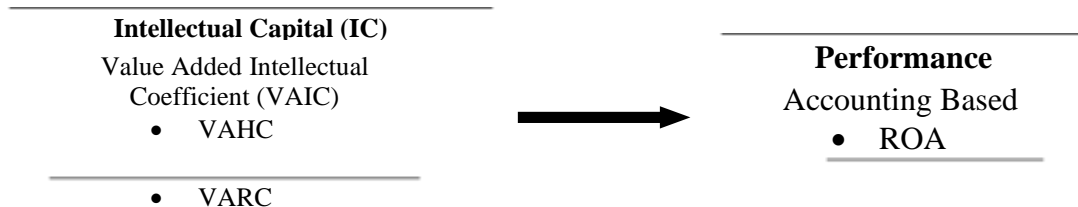


Figure 3.1 serves as a guide in model specification.

Source: Adapted from Pulic (1998).

Model Specification

The model used in testing the hypotheses is given as:

$$\text{Perf} = f(\text{IC}) \quad (1)$$

Where: Perf = ROA

IC = VAIC

$$\text{VAIC} = \text{HCE} + \text{RCE} \quad (2)$$

Thus, ROA = f (HCE and RCE) - - - - - (3)

$$\text{ROA} = \beta_0 + \beta_1 \text{VAIC} + \varepsilon \quad (4)$$

Where:

IC = Intellectual Capital (considered as an investment)

VAIC= Value Added Intellectual Capital

ROA = Return on Asset (Dependent Variable)

HCE=Human Capital Efficiency (Independent Variable)

RCE = Relational Capital Efficiency (Independent Variable)

β_0, β_1 – Coefficient

ε – Stochastic Error Term

4.0 Descriptive Statistics

The descriptive statistics of the data set is presented in Table 4.1. The descriptive statistics includes mean, median, minimum, standard deviation, skewness, kurtosis, Jarque-Bera.

Table 4.1 Descriptive Statistics

	RETURN ON_ASSETS (ROA) (%)	RELATIONAL CAPITAL EFFICIENCY (N'000)	HUMAN CAPITAL EFFICIENCY (N'000)
Mean	1.545134	0.005764	0.275713
Median	2.011927	0.001130	0.246671
Maximum	13.96257	0.277924	4.113974
Minimum	-31.06369	-0.149924	-3.243140
Std. Dev.	4.466797	0.036990	0.604616
Skewness	-4.962366	4.263706	0.799947
Kurtosis	37.89728	41.88326	35.60920
Jarque-Bera	4387.734	5282.081	3553.065

Probability	0.000000	0.000000	0.000000
Sum	123.6107	0.461132	22.05703
Sum Sq. Dev.	1576.230	0.108095	28.87925
Observations	80	80	80

Source: Researcher's Computation (2022).

Based on the result of the analysis shown in Table 4.1, the average return on assets (financial performance) of the deposit money banks was 1.54%. The minimum value was -31.06% while the maximum was 13.96%. The degree of dispersion which is the standard deviation was 4.46%. Relational capital efficiency had a minimum value of -0.149924 or ₦149.924 while the maximum value was 0.277924 or ₦277.924. The average value of relational capital efficiency was 0.005764 or ₦5.764. The standard deviation for relational capital efficiency was 0.036990 or ₦36.99. Human Capital Efficiency had a minimum value of -3.243140 or -₦3,243.10 while the maximum value was 4.113974 or ₦4114.00. The average structural capital efficiency was 0.275713 or ₦275.71. The standard deviation for structural capital efficiency was 0.604616 or ₦604.62.

Presentation and analysis of Empirical Results

A multiple linear regression analysis was carried out in line with the model specification of the study, and the results are shown in Tables 4.2, 4.3 and 4.4 respectively. The result of the regression analysis was used to test the research hypotheses.

Table 4.2 Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.395 ^a	.156	.123	136.56875	1.552

a. Predictors: (Constant), RELATIONAL CAPITAL EFFICIENCY, HUMAN CAPITAL EFFICIENCY

b. Dependent Variable: FINANCIAL PERFORMANCE

Source: Researchers' Computation (2022).

Table 4.3 ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	261839.006	3	87279.669	4.680	.005 ^b
	Residual	1417477.881	76	18651.025		
	Total	1679316.887	79			

a. Dependent Variable: FINANCIAL PERFORMANCE

b. Predictors: (Constant) RELATIONAL CAPITAL EFFICIENCY, HUMAN CAPITAL EFFICIENCY

Source: Researchers' Computation (2022).

Table 4.4 Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	658.781	131.788		4.999	.000		
	RELATIONAL CAPITAL EFFICIENCY	-.236	.433	-.059	-.545	.587	.959	1.043
	HUMAN CAPITAL EFFICIENCY	-.688	.185	-.491	-3.721	.000	.638	1.566

a. Dependent Variable: FINANCIAL PERFORMANCE

Source: Researcher's Computation (2022).

Test of Hypotheses

Hypothesis One

The null hypothesis one states that there is no significant impact of relational capital efficiency on the performance of deposit money banks in Nigeria. Based on the decision rule of the study, the null hypothesis one of the study is rejected and the alternate accepted because the p-value of 0.587 shown in Table 4.4 is greater than 0.05. The null hypothesis is further accepted because the t-cal value of -0.545 is less than the critical value of t which was 1.990. This implies that there is no significant impact of relational capital efficiency on the performance of deposit money banks in Nigeria.

Hypothesis Two

The null hypothesis two states that there is no significant influence of human capital efficiency on the performance of deposit money banks in Nigeria. Based on the decision rule of the study, the null hypothesis two of the study is rejected and the alternate accepted because the p-value of 0.000 shown in Table 4.4 is less than 0.05. The null hypothesis is further rejected because the t-cal value of 3.721 is greater than the critical value of t which was 1.990. This implies that there is a significant influence of human capital efficiency on the performance of deposit money banks in Nigeria.

Discussion of Findings

Intellectual capital, as exemplified in this study is the human capital and relational capital of the sampled banks. The analysis revealed that relational capital efficiency had insignificant but negative influence on the financial performance of the sampled banks. The beta coefficient showed a 5.9% decrease in financial performance as accounted for by relational capital efficiency. The negative relational capital implied that the banks were not generating enough value added to cover their relational capital investment. The analysis also indicated that there was a negative but significant impact of human capital efficiency on the financial performance of the selected banks. This as indicated in the result implied that 49.1% decrease in the financial performance of the selected banks was caused by human capital efficiencies. These has to do with the people managing whatever structures put in place and the implementers of bank policies. It can therefore be said that with adequate manpower, the banks can perform efficiently but with excessive expenditure on human capital these will affect the financial performance of the bank negatively. This was in line with the findings of Hossain, Salam, Reza & Hasan (2022).

The influence of intellectual capital efficiency on the performance of Deposit money Banks showed an adjusted R-square value of 0.123 which means that 12.3% of the variation in financial performance of deposit money banks is influenced by intellectual capital. The result was also in line with the findings of Ali, Murtaza, Hedvicakova, Jiang, and Naeem (2022) who researched on whether IC efficiency impacts the financial performance of listed Pakistani and Indian companies and their result showed that intellectual capital significantly influences financial performance.

5.0 Summary, conclusion and recommendations

The study revealed that there is a significant influence on Intellectual Capital on the Performance of Deposit Money Banks in Nigeria, while relational capital does not significantly influence the financial performance of deposit banks in Nigeria

Conclusion

In conclusion, the intellectual capital of banks in Nigeria significantly influences performance which confirms the a priori expectation of the study. It was also concluded that the independent variables on their own impacted the dependent variable differently.

Recommendations

It was recommended that bank should maintain equilibrium in their investment in intellectual capital components which include human capital and relational capital. They should also initiate strategies that will guarantee continued growth in performance.

Contributions to Knowledge

This study has established empirically that intellectual capital influences the performance of deposit money banks significantly using the VAIC approach.

REFERENCES

- Abel, J. and Deitz, (2015). Productivity and the density of human capital. *Journal of Regional Science and Urban Economics*, 2(3): 230-245.
- Adebawojo, O., Enyi, P. and Adebawo, O., (2015). Human asset accounting and corporate performance. *American International Journal of Contemporary Research*, 1(4): 140-151.
- Adugna, B.M., Kumar, B., and Umamaheswari. K. (2021) Effects of intellectual capital efficiency on the financial performance of share companies; with the special reference of Ethiopian banks and insurance. *Annals of R.S.C.B.*, 25(4):20841-20855.
- Ahangar, 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.
- Akindehinde, A., Enyi, P., and Olutokunbo, A., (2015). Human asset accounting and corporate performance. *American International Journal of contemporary research*, 5(1): 70-78.
- Akpinar, A., and Akdemir, A. (2000). *Intellectual capital*. First International Joint Symposium on Business Administration, 218p. Available @ <http://1stinternationalJSBM.org.edu.doc>. Retrieved 30/04/2019.
- Ali, I., (2015). Effect of intellectual capital component on the financial performance of deposit money banks in Nigeria. *Book of Proceedings: the 6th Academic Conference of Hummingbird Publications and Research International on Paving Way for Africa Unique Opportunities for Sustainable Development in the 21st Century*, 6 (3), University of Ibadan Conference Centre, U.I, Ibadan, Oyo State, Nigeria, 112p.
- Ali, S., Murtaza, G., Hedvicakova M., Jiang, J. and Naeem, M. (2022) Intellectual capital and financial performance: A comparative study. *Front. Psychol.* 13. doi: 10.3389/fpsyg.2022.967820.
- Appuhami, R. (2017). The Impact of intellectual capital on investors' capital gains on shares: An empirical investigation of Thai banking, finance and insurance sector. *International Management Review*, 2(3): 215-220.
- Barney, J., (1991). Firm Resources and sustained competitive advantage. *Journal of Management*, 17: 99-120.
- Barney, J., and Clark, D. (2007). *Resource-based Theory*. New York: Oxford, 259p.
- Basse, B., and Tapang, A. (2012). Expensed human resources cost and its influence on corporate productivity: A study of selected companies in Nigeria. *Global Journal of Management and Business Research*, 12(5): 3-8.

- Becker, B. E. and Barry, G. (1996). The impact of human resources management on organizational performance: Progress and Prospects. *Academy of Management Journal*, 39 (4):779-801.
- Becker, G. S., (1964). *Human Capital*. New York: McGraw Hill, 463p.
- Blessed, A. D. (2022). Intellectual capital performance of non-finance firms in Nigeria. *European Journal of Business and Innovation Research*, 10(1):1-17.
- Bontis, N, Chua, W., and Richardson, S. (2000). Intellectual capital and the Nature of Business Performance in Malaysia. *Journal of Intellectual Capital*, 1(1): 85-104.
- Bontis, N., (2000). Intellectual capital: An exploratory study that develops measures and Models. Boston: Harvard Business School Press *Management Decision*, 36(2):63-67.
- Bouty, I. (2000). Interpersonal and interaction influences on informal resource exchanges between R&D researchers across organizational boundaries, *Academy of Management Journal*, 43(1): 50-65.
- Bowman, C., and Ambrosini, V. (2000). Value Creation Versus Value Capture: Towards a Coherent Definition of Value in Strategy. *British Journal of Management*, 11:1-15.
- Brooking, A. (1996). *Intellectual Capital: Core Assets for the Third Millennium Enterprise*. London, United Kingdom: Thomson Business Press, 97p.
- Brummet, R. L. (1970). Accounting for human resource, *The Journal of Accountancy*, 4(5):62-66.
- Bukowitz, W., and Williams R. (1999). The knowledge management Field book, *Financial Time*, Prentice, 194p.
- Burgman, R., Roos, G., Ballow, J., and Thomas, R. (2005). No longer out of sight, out of mind‘ intellectual capital approach in asset Economics Inc. and Accenture llp, Accenture Institute for High Performance Business. *Journal of Intellectual Capital*, 6 (4): 588-614
- Cabrita, M., a.nd Vaz, J. (2006). Intellectual capital and value creation: Evidence from the Portuguese Banking Industry. *The Electronic Journal of Knowledge Management*, 4(1):11-20.
- Cameron, K. (1986a). A Study of organizational effectiveness and its predictors. *Management Science*, 32(1):87-112.
- Cameron, K. (1986b). Effectiveness as Paradox: Consensus and Conflict in Conceptions of Organizational Effectiveness. *Management Science*, 32(5): 539-553.
- Carneiro, J., Silva, J., Rocha, A., and Dib, L., (2007). Building a Better Measure of Business Performance. *RAC-Eletrônica*, 1(2), 114-135. Available @ http://www.anpad.org.br/periodicos/arq_pdf/a_639.pdf. Retrieved 24/06/2019.
- Carton, R., and Hofer, C., (2006). *Measuring Organizational Performance: Metrics for Entrepreneurship and Strategic Management Research*. Cheltenham, UK; Northampton, MA: Edward Elgar, 407p.
- Chadler, A. (1962). Strategy and structure: Chapters in the history of the industrial enterprise. University of Illinois at Urban Champaign’s Academy for Entrepreneurial Leadership Historical Research, 512p.
- Chen, M. (2001). *The effect of information technology investment and intellectual capital on business performance*. Unpublished: PhD Thesis, National Central University, Jhongli City, Taiwan, 143p.

- Chen, M., Cheng, S., and Hwang, Y. (2005). An empirical investigation of the relationship between intellectual capital firms' market value and financial performance, *Journal of Intellectual Capital*, 6 (2):159–176.
- Cohen, S. and Kaimenakis, N. (2007). Intellectual capital and corporate performance in knowledge intensive SMEs. *The Learning Organization*, 14(3): 42-54.
- Combs, J., Crook, T., and Shook, C., (2005). *The Dimension of Organizational Performance and its Implications for Strategic Management Research*. In Ketchen, D., and Bergh, D., (Eds.), *Research Methodology in Strategy and Management*. San Diego: Elsevier, 286p
- Connolly, T., Conlon, E., and Deutsch, S., (1980). Organizational effectiveness: A multiple constituencies approach. *Academy of Management Review*, 5(2): 211-217.
- Core, J., Holthausen, R., and Larcker, D., (1999). Corporate governance, chief executive officer compensation and firm performance. *Journal of Financial Economics*, 51: 371-406.
- Davenport, T. (1999). *Human Capital*, SF: Jossey-Bass, 357p.
- Dictionary of Sociology*. (1998). *Human Capital Theory*. Originally published by Oxford University Press, 303p.
- Edom, G., Inah, E., and Adanma, E. (2015). The Impact of human resource accounting on the profitability of a firm: Empirical evidence from Access Bank of Nigeria Plc. *International Journal of Accounting and Management*, 3(1): 72-96.
- Edvinsson L., and Malone M. (1997). *The Copyright Book: Intellectual capital*, Harper Business, 114p
- Edvinsson L., and Malone M. (1998). *Intellectual capital: The proven way to establish your company's Real Value by Measuring Its Hidden Brainpower*. Publisher: Piatkus; New Ed edition. ISBN-13: 978-0749918507, 251p.
- Edvinsson, L. (2000). Some Perspectives on intangibles and intellectual capital: *Journal of Intellectual Capital*, 1 (1): 12-13.
- Ekwe, M., (2013). The Relationship Between intellectual capitals and growth in revenue of deposit money banks in Nigeria. *Research Journal of Finance and Accounting*, 4(12): 55-64.
- Ekwe, M., (2014). Intellectual Capital and financial performance indices of deposit money banks in Nigeria: A comparative assessment. *European Journal of Accounting, Auditing and Finance Research*, 2 (2): 50-62.
- Emmanuel, C., Otley, D. and Merchant, K. (1990). *Accounting for management control* London: Chapman and Hall, 672p.
- Encyclopedia, (2017). Human capital theory. *A Dictionary of Sociology*. <http://www.encyclopedia.com>, 313p.
- Engstrom, T., Westnes, P., and Westnes, S., (2003). Evaluating intellectual capital in the hotel industry. *Journal of Intellectual Capital*, 4 (3): 287-303.
- Enofe, A., Mgbame, C., Otuya, S., and Ovie, C., (2013). Human resource accounting Disclosures in Nigeria Quoted Firms. *Research Journal of Finance and Accounting*, 4(13): 611-629.
- Enyi, P., Adebawojo, O., (2014). Human resource accounting and decision making in post-industrial economy. *American International Journal of Contemporary Research*, 4(2): 150-160.

- Euske, K. (1984) *Management Control: Planning, control, measurement and evaluation Addison*. Wesley Inc.: 78p.
- Firer, S., and Williams, S. M. (2003). Intellectual capital and traditional measures of performance. *Journal of Intellectual Capital*, 4(3): 348-360.
- Firer, S., and Williams, S., (2003). Intellectual capital and traditional measures of corporate performance. *European Journal of Accounting, Auditing and Finance Research*, 3 (7):72-90.
- Fitz-Enz, J. (2003). The ROI of human capital. *Journal of Economics and Management*, 3(3): 51-57.
- Fitz-Gibbon, C., (1990). Performance indicators. *Journal of finance and Accounting*, 2(1): 19-33.
- Frederiksen, J. and Westphalen, S., (1998) Human resource accounting: interest and conflicts. *A discussion paper. Presented at the European Centre for the Development of Vocational Training, Thessaloniki*, 149p.
- Freeman, R. (1984). *Strategic management: A stakeholder approach*. Boston: Pitman ISBN 0-273-01913-9, 1148p
- Freeman, R. and Reed, D. (1983). Stockholders and stakeholders: A new perspective on corporate governance. *California Management Review*, 3(2): 64-70.
- Galbraith, K. (1969). *How to Control the Military*. Garden City, NY: Doubleday, 273p.
- Goh, P. (2015). Intellectual Capital Performance of Commercial Banks in Malaysia. *Journal of Intellectual Capital*, 6 (3):385 – 396.
- Grigore, A., Bagu, C. and Radu, C. (2009). *The Strategic performance management process*, Oxford Publishers, England, 321p.
- Herremans, I., Isaac, R. and Nazari, J. (2010). Intellectual capital and Uncertainty of knowledge: Control by design of the management system. *Journal of Business Ethics*, 98: 627-640.
- Hitt, M., (1988). The measuring of organizational effectiveness: Multiple domains and constituencies. *Management International Review*, 28(2):28-40.
- Hosnavi, R. and Ramezan, M. (2011). Intellectual Capital and Organizational Organic Structure, how are these Concepts Related? *Trends in Applied Sciences Research*, 6(3): 256-268.
- Hossain, A., Akhter, N., and Nabila Sadia, N., (2014). An Empirical Analysis on Importance of Human Resource Accounting (HRA) Practices in the Organizations. *International Journal of Ethics in Social Sciences*, 2(2): 240-250.
- Hossain, M.K, Salam, M.A, Reza, M.M & Hasan, M.T. (2022). Impact of intellectual capital on profitability, market value, and productivity of the listed banks: Evidence from Bangladesh. *International journal of accounting & finance review*, 12(1): 35-46.
- Hsu, L., and Wang, C. (2010). Clarifying the Effect of Intellectual capital on Performance: the Mediating Role of Dynamic Capability. *British Journal of Management*, 7(7): 233-244
- Huang, C. F. and Hsueh S. L. (2007). A Study on the relationship between intellectual capital and business performance in the engineering consulting industry: A path analysis. *Journal of Civil Engineering and Management*, 13(4):265–27.
- Inman, R. and Green, K. (2018). Lean and green combine to impact environmental and operational performance. *International Journal of Production Research*, 56(14): 4802-4818.

- Islam, A., Kamruzzaman, M., and Redwanuzzaman, M., (2013). Human resource accounting: Recognition and disclosure of accounting methods and techniques. *Global Journal of Management and Business Research Accounting and Auditing*, 13(3): 100-120.
- Ismail and Karem, (2014). Values congruence and relational demography as an antecedent of organizational commitment. *International Journal of Business and Management Studies*, 6(1); 16-21. Available @ <http://dergipark.org.tr/en/pub/ijbms/issue/26062/274524>. Retrieved 30/04/2019.
- Jacob, B. (2005). *Reporting of Intellectual Capital in Research Intensive SMEs Final Dissertation*. The University of Inholland. Available @ <http://uniiho.org.tr/lres./papers>. Retrieved 16/04/2019.
- Jaggi, B., and Lau, H. S. (1974). Toward a Model for Human Resource Valuation. *The Accounting Review*, 49(2):14-22.
- John, S. (2017). *Six Types of Relational Capital*. Available at Simplicable.com.
- John, S. (2017). *Ten Examples of Structural Capital*. Available at Simplicable.com
- John, S. (2018). *Eighteen Elements of Human Capital*. Available at Simplicable.com.
- Joshi, M., Cashill, D., Sidhu, J. and Kansal, M. (2013). Intellectual capital and financial performance: An evaluation of the Australian financial sector. *Journal of Intellectual Capital*, 14(4): 264-285.
- Kamal, H., Mat, C., Rahim, A., Husin, N., and Ismail, I. (2012). Intellectual capital and firm performance of commercial banks in Malaysia. *Asian Economic and Financial Review* 2(4): 577-590.
- Kaplan, R. and Norton, D. (2004). *Strategy Maps – Converting intangible assets into tangible outcomes*. Boston, MA: Harvard Business School Press, 341p.
- Katz, D. and Kahn, R. (1978). The social psychology of organizations. *Administrative Science Quarterly*, 24(3): 495-500.
- Keenan, J. and Aggestam, M. (2001). Corporate governance and intellectual capital: Some conceptualizations. *Corporate Governance Journal*, 9(4): 259–275.
- Kenton, S. (2019). Accounting for greenhouse and gas emissions. *Management Accounting Quarterly*, 20(2): 11-27.
- Khalique, M., Shaari, J., Isa, A., and Ageel, A. (2011). Role of intellectual capital on the organizational performance of electrical and electronic SMEs in Pakistan. *International Journal of Business and Management*, 6(9): 202-224.
- Khan M. (2014). A critical Review of empirical studies in intellectual capital literature. *International Journal of Academic Research in Business and Social Sciences*, 4(11): 514-529.
- Kim, H. and Shin, M. (2011). The effects of macroeconomic conditions on the adjustment Speed of Capital Structure. *The Korean Journal of Financial Engineering*, 10(4): 141-172.
- Kirfi, M., and Adbullahi, A., (2012). Human capital accounting: Assessing possibilities for Domestication of Practice in Nigeria. *Research Journal of Finance and Accounting*, 3(10): 57-63.
- Kogut, B., and Zander, (1996). What Firms Do? Coordination, identity and learning in practice. *Journal of Business Management and Organizational Behaviour*, 4(1): 42-53.

- Lamidi, L. (2002). An assessment of human asset Accounting techniques and its application to Nigeria private sector. *Journal of Accounting, Finance and Auditing*, 10(3): 104-125.
- Leadbeater, C. (1999). *New Measures for the New Economy*. Demos, Available at: www.oecd.org. Retrieved on 15/01/2019.
- Lev, B. (2001). *Intangibles: Management, measurement and reporting*. Washington, D. C.: Brookings Institution Press, 718p.
- Liu, L.; Zhang, J.; Xu, J. and Wang, Y. (2022). Intellectual capital and financial performance of Chinese manufacturing SMEs: An analysis from the perspective of different industry types. *Sustainability*, 14, 10657. <https://doi.org/10.3390/su141710657>
- Lonnqvist, A. and Kujansivu, P. (2004). The value and efficiency of intellectual capital in Finnish companies. Available: http://www.tut.fi/units/tuta/tita/tip/Kujansivu_Lonnqvist.pdf. Retrieved on 15/01/2019.
- Lonnqvist, A. Kianto, A. and Sillanpaa, V. (2009). Using intellectual capital management for facilitating organizational change. *Journal of Intellectual Capital*, 10(4): 559-572.
- Maddocks, J. and Beaney, M. (2002). See the invisible and intangible. *Knowledge Management*, 4(2): 16-17.
- Mahoney, L. and Roberts, W. (2002). Corporate social and environmental performance and their relation to financial performance and institutional ownership: Empirical evidence on Canadian Firms, Working paper. *Management Decision*, 36(2): 63-76.
- Marr, B. (2007). What is Intellectual Capital? In JOOIA, L.A. (ed) *Strategies for Information Technology and Intellectual Capital. Challenges and Opportunities*. London: Information Science Reference, Idea Group Inc, 197p.
- Marr, B. Schiuma, G. and Neely, A. (2004). Intellectual capital: Defining key performance indicators for organizational knowledge assets. *Business Process Management Journal*, 10(5): 551–569.
- Mincer, J. (1958). Investment in human capital and personal income distribution. *Journal of Political Economy*, 66(4): 281-302.
- Mouritsen, J. Bukh, P. Larsen, H. and Johansen, M. (2002). Developing and managing knowledge through intellectual capital statements. *Journal of Intellectual Capital*, 3(1): 10-29.
- Muhammad, K. (2014). A critical review of empirical studies in intellectual capital literature. *International Journal of Academic Research in Business and Social Sciences*, 4(11): 188-202.
- Najibullah, S., (2005). An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance in context of commercial banks of Bangladesh. *International Journal of Finance and Banking*, 8(2): 118-134.
- Nik, M. (2009). Intellectual capital efficiency and firm's performance: Study on Malaysian financial sector. *International Journal of Economics and Finance*, 1(2): 10-23.
- Obara, L. C., (2013). Conventional human asset accounting treatment and corporate profitability Evaluation. *European Journal of Accounting Auditing and Finance Research*, 1(3): 66-82
- Ofurum, C. Aliyu, A., (2018). Intellectual capital component and financial performance of quoted Banks in Nigeria. *International Journal of Advanced Academic Research, Financial Management*, 4 (2): 95-117.

- Ogbodo, O. Amahalu, N. Abiahu, M. (2017). Effect of intellectual capital on financial performance of quoted deposit money banks in Nigeria. *Journal of Global Accounting*, 5(1): 114-116.
- Okpala, O. and Chidi, O. (2010). Human capital accounting and its relevance to stock investment decisions in Nigeria. *European Journal of Economics, Finance and Administrative Sciences*, 6(1): 43-66.
- Onyekwelu, U., Okoh, J., and Iyidiobi, I., (2017). Effect of intellectual capital on financial performance of banks in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 5 (2): 28 – 57.
- Opazo, C. A. and Gonzalez, O. C. (2021). The impacts of intellectual capital on financial performance and value-added of the production evidence from Chile. *Journal of Economics, Finance and Administrative Science*, 26(51):127-142.
- Orjakor, (1999). Origin of Nigeria banking system. Articles.ng the expert provider of custom Articles, Essays, Term Papers, Project Materials and Information. *Organization Science*, 7: 502-518.
- Otley, D. (1999). Performance management: A framework for management control systems Research. *Management Accounting Research*, 3(3): 27-38.
- Pandey, I., (2001). Financial goals choices and performance of firms in Malaysia, *Indian Institute of Management Ahmedabad, India*, 185p.
- Pandya, K. and Rao, V. (1998). Diversification and firm performance: An empirical evaluation. *Journal of Financial and Strategic Decisions*, 11(2): 73-89.
- Penrose, E. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley, 167p.
- Pfeffer, J. (1994). *Competitive Advantage through People: Unleashing the Power of the Workforce*. Oxford Publishers, London, 166p.
- Polanyi, M. (1966). *The Tacit Dimension*. London: Routledge and Kegan Paul, 218p.
- Porter, M. (1996). What is Strategy? *Harvard Business Review*, 31(3): 1114-1129.
- Pulic, A. (1998). Measuring the performance of intellectual potential in the knowledge economy. Available: [http:// www.measuring-ip.at](http://www.measuring-ip.at) (January 15, 2009). Retrieved on 26/04/2019.
- Pulic, A. (1998). Measuring the performance of intellectual potential in knowledge economy, available: <http://www.measuringip.at/Opapers/Pulic/Vaictxt.vaictxt.html>. Retrieved 04/11/2019.
- Rastogi, P. (2002). Knowledge management and intellectual capital as a paradigm of value creation. *Human Systems Management*, 21: 229-240.
- Ratti, M. (2012). Analytical study of human resource accounting practices. *Journal of Management*, 5(2):37-45.
- Reh, F., (2019). Basics of key performance indicators and organizational performance evaluation. *International Journal of Management Sciences*, 15(2): 601-619.
- Rehman, W., Rehman, C., Rehman, H., Zahid, A., (2011). Intellectual capital performance and its impact on organizational performance. *Journal of Management in Practice*, 3(4): 7-19.
- Rezende, J. F. C., & Silva, M. P. (2021). Value added by intellectual capital: a study from the brazilian B3's ISE portfolio – Corporate Sustainability Index. *Gestão & Produção*, 28(2), e5124. <https://doi.org/10.1590/1806-9649-2020v28e5124>

- Riahi-Belkaoui, A. (2003). Intellectual capital and firm performance of US multinational FIRMS. A Study of the resource-based and stakeholder views. *Journal of Intellectual Capital*, 4: 215- 230.
- Richard, P. Devinney, T. Yip, G. and Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of Management* 35(3): 193-214.
- Roos G. Pike S. and Fernstrom L. (2005). *Managing Intellectual Capital in Practice*. Butterworth-Heinemann, New York, 19p.
- Ross, L. (1998). The Legal environment, banks, and long-run economic growth. *Journal of Money, Credit and Banking*, 30(3): 596-613.
- Saint-Onge, H. (1996). Tacit Knowledge: the Key to the Strategic Alignment of Intellectual Capital. *Strategic Leadership*, 24(2): 10-16.
- Samad, A., and Hassan, K. (2000). The performance of Malaysian Islamic bank during 1984-1997: An Exploratory Study. *International Journal of Islamic Financial Services*, 1(3): 19-37.
- Santos, J., and Brito L., (2012). Toward a Subjective Measurement Model for Firm Performance. *Brazillian Administration Review*. Available online at <http://www.anpad.org.br/bar>. Retrieved 26/04/2019.
- Schuler, R. S., and Macmillan, I. C., (1984). Gaining Competitive Advantage Through Human Resource Management Practices. *Human Resource Management*, 23 (3): 241-256.
- Schultz, T. (1981). *Investing in People: The Economics of Population Quality*. Berkeley, Calif: University of California press, 598p.
- Selznick, P. (1952). *The Organizational Weapon*. New York, NY: McGraw-Hill, 291p.
- Selznick, P. (1957). *Leadership in Administration*. New York: Harper, 140p.
- Shaari, J.A., Khalique, M., and Isa A., (2010). Ranking of public and domestic private sector Commercial Banks in Pakistan on the Basic of the Intellectual Capital Performance. *Proceedings of International Borneo Business Conference*, 1(3): 55-61.
- Sitar, A. S., Vasic, V., (2004). Measuring intellectual capital: lessons learned from a practical implementation. Proceedings of the 5th International Conference of the Faculty of Management Koper, University of Primorska, 337–351p.
- Skaikh, J. (2004) Measuring and reporting of intellectual capital performance analysis. *The Journal of American Academy of Business*, 4(3): 439–448.
- Steward, T. (1997). *Intellectual Capital*. Bantam Doubleday Dell Publishing Group, New York, 187p.
- Steward, T. (1997). *Intellectual Capital: the New Wealth of Organizations*. Knowledge Management. USA: Nicholas Brearley, 204p.
- Steward, T. (2001). *The Wealth of Knowledge: Intellectual Capital and the Twenty-first Century Organization*. London: Nicholas-Brealey, 261p.
- Stigler, G. and Boulding, K. (1961). The Nature of the Firm. *Econometrica*, 4: 386-405.
- Sullivan, P. (2000). *Value Driven Intellectual Capital: How to Convert Intangible Corporate Assets into Market Value*. John Wiley and Sons, Inc. New York, NY, 360p.
- Sveiby, K. (1997). The intangible asset monitor. *Journal of Human Resource Casting and Accounting*, 2(1): 74-92.
- Sveiby, K. E., (2010). *Methods for measuring intangible assets*. Available at <http://www.sveiby.com>. Retrieved 30/04/2019.

- Swart, J. (2006). Intellectual Capital: Disentangling an Enigmatic Concept. *Journal of intellectual capital*, 7(2):136-159.
- Swart, J. and Bowman, C. (2003). Lord of the Rings or Lord of the Dance: Competing for Embedded Instruments. *Journal of Financial Studies*, 5(1): 118-132.
- Taghizadeh, V., Akbari, M. and Ghanavati, E. (2012). An empirical investigation of the impact of intellectual capital on firms' market value and financial performance: evidence from Iranian companies. *International Journal of Management of Business Resources*, 2 (1): 1-12.
- Tai-Ning, Y., Hsiao-Chen, C., Shou-Yen, L. and Chiao-Lun, T. (2011). Knowledge creation and intellectual capital on securities investment services. *African Journal of Business Management*, 5(3): 924-933.
- Tseng, C. and Goo, Y. (2005). Intellectual capital and corporate value in an emerging economy: empirical study of Taiwanese manufacturers. *Journal of Research and Development Management*, 35(2): 19-34.
- Ulrich, D. (1998). Intellectual capital equals competence multiplied by commitment. *The Knowledge Management Yearbook*: 126–142.
- Uzzi, B. (1996). The sources and consequences of embeddedness for economic performance of organisations: The network effect. *American Sociological Review*, 64:674-698.
- Venkatraman, N. and Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches, *Academy of Management Review*, 11(1): 801-814.
- Virkus, S. (2014). *Strategic and planning Issues of Knowledge management*. Institute of Information Studies, Tallinn University, 143p.
- Vlachos, I., (2009). The effects of human resource practices on firm growth. Dept. of Agricultural Economics and Rural Development, Agricultural University of Athens Iera Odos 75, Botanikos, 118 55, Athens, Greece. *Int. Journal of Business Science and Applied Management*, 4(2): 1-11.
- Waddock, S. and Graves, S. (1997). The Corporate social performance: Financial performance Link, *Strategic Management Journal*, 3(2): 15-32.
- Wernerfelt, B. (1984). A Resource Based View of the Firm. *Strategic Management Journal*, 5: 171-180.
- Williamson, O. (1981). The modern corporation: Origins, evolution, attributes. *Journal of Economics Literature*, 19(9):1537-1568
- Yau, F. S., Chun, L. S., and Balaraman, R., (2019). Intellectual capital reporting and corporate characteristics of public-listed companies in Malaysia. *Journal of Financial Reporting and Accounting*, 7(1):17-35.
- Zammuto, R., (1984). A comparison of multiple constituency models of organizational effectiveness. *Academy of Management Review*, 9(4): 606-616.
- Zhang, J., Zhu, N., and Kong, Y. (2006). Study on intellectual capital and enterprise's performance: Empirical evidence from the Chinese securities market. *Journal of Modern Accounting and Auditing*, 2(10): 12-24.