

# The Mediating Effect of Intellectual Capital on Corporate Governance and Performance of Conglomerates in Nigeria

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**Purpose:** The nature of diversification in the form of conglomerates is the research theme for this study. Thus, CG's functions on FP on conglomerates firms of Nigerian economy was studied while applying IC as the mediating variable.

**Design/Methodology:** This research depends on archival data collected from the NSE. Firms have been chosen based on the convenient sampling method and an important parameter for judgment is Conglomerated firms. In order to get genuine results, ten years of financial data have been taken into consideration. Multiple regression technique was used to analyze the data. The software used for analysis was STATA version 14.0.

**Results:** The model I of the study disclose a pessimistic and insignificant impact of board size and board independence on IC using VAIC as a proxy. In contrast, model II results disclosed that the performance of the firms was impacted by the board's size and institutional ownership. Implying that, the greater the size of the firm as well as more shares owned by institutional shareholders the higher the profit.

**Practical Implications:** Nigeria being one of the growing economies now is dependent on knowledge assets and hence it has a positive effect on the firm's performance. Conglomeration is seen even between employee's skills of both industries, which give a positive outcome. Hence, firms under conglomerate tags have a strong impact in relation to intellectual capital.

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## Introduction

Nowadays the greater dependence on knowledge by firms over and above the traditional material and financial capital proves to be a unique method of obtaining organizational significance and a means of competitive edge sustenance by enterprises (Al-Musali & Ismail, 2014). However, the rapid technological evolutions, dynamic business environment have change the struggle of firms' survival in the market, which is no longer the effective way of using the conventional approach of physical and financial assets but rather the intellectual capital (IC) due to the erudite nature of the customers (Cuganesan, 2006). In fact, several researchers have unarguably disclosed that firms' financial performance (FP) is significantly improved while interacted with corporate governance (CG) and IC. For instance, (Basyith, 2016; Guo, Shiah-Hou, & Chien, 2012; Kamukama, Ahiauzu, & Ntayi, 2010; Lin, Yu, Wu, & Cheng, 2018; Makki & Lodhi, 2014; Wu, Lee, & Wang, 2012) opined that, present business managers and the prospective ones most come to term that modern business organizations heavily compete in terms of human capital (HC), structural capital (SC), and relational capital (RC) which are commonly referred to as IC in the knowledge economy field (F-Jardón & Susana Martos, 2009). IC donates to relatively subtle and/or concealed assets that serve as a leveraged in firm's value addition which in turn benefits business owners (Fragouli, 2015; Garanina, 2011; Marr, Gray, & Neely, 2003). IC comprises of elements that give organization edge among its competitors. IC assets have linked between one another and are transformed in income mechanisms that are tailored towards the organizational goal congruence (Hejazi, Ghanbari, & Alipour, 2016). The ever-changing business environment the world-over causes business enterprises prone to several competitive challenges from both the existing once and those that intend to venture into the business despite the difficulties involved. CG consists of structures that entails the arrangements and guides the decision of business owners in-terms of legal actions, organizational characteristics, and the intellectual attitudes of the firms (Bueno, Paz Salmador, & Rodríguez, 2004). Size of the Board and the Composition of the Audit committee members were employed by the researchers in measuring CG, furthermore, the formulae by Brigham and Houston (2012) that is,

$$ROA = \frac{\text{Net Income Before Tax}}{\text{Total Asset}} \times 100\%$$

was utilized for Return on Assets (ROA). Archival data were generated from the sampled conglomerate firms' financial statements in Nigeria. IC and its relationship with CG and related sub-factors and the overall impact on the position of the firm in terms of return and profitability have to be analyzed. The growth of Nigeria in recent times is incredible, as it has grown in leaps in a very short span of time. The manufacturing sector has seen a tremendous change looking forward to skilled employees with talents, skills, and creativity. Conglomerates plays an important role in a developing economy like Nigeria, hence the study chooses this sub-sector because it's equally "intellectually intensive" (Joshi, Cahill, & Sidhu, 2010); conglomerates were selected due to the availability of data and it's a vast sub-sector that will capture the essential intent of the research. Consideration of future growth and prospects of a nation has to be the focal point of the Nigerian government and it has to come up with strict rules and regulations, which will protect the interest of all the stakeholders. CG is one of the measures taken for streaming work ethics. Future researchers can carry out a study in new dimensions considering the conglomerates, thus this paper as a base has a future scope.

## Research Objectives

- To assess the impact of IC on the performance of the firm when being mediated through CG.
- To evaluate the logical association between CG, IC, and Nigerian conglomerates firms' performance so as to establish conceptual models.
- To provide valuable suggestions and recommendations to the connected stakeholders for them to be more concerned with firms under the conglomerate tag.

## Literature Review

### The Art of Incorporating Systematic Review

A huge number of research articles already exists in the topic related to IC, CG and firm's performance in various contexts. Thus, there is a need to find the gap existing in the past research work to facilitate the current research with a new dimension of exploration. A systematic review is a process of raising research questions to think, analyze and focus the study theme with limited scope for deeper exploration. This process is facilitated by the selection of the paper needed for review of literature process. Systematic reviews should also be used to find the statistical Meta output to widely check the association between the study variables explored by other researchers. Proposing a new link between the study variables is an outcome of the systematic review. This, research follows a systematic review approach to find reasons with justifications to proceed with the study theme "The Corporate Governance, Intellectual Capital and Performance of Conglomerates in Nigeria". In this study, the literature review has been keenly worked by considering articles related to the study theme and research question. This exposure of selection of articles based on search criteria (CG, IC, FP), Inter-relationship between the variables was one of the main criteria. Not many articles were there highlighting the relationship between all the variables but a few in which a selection procedure was conducted. The dependent variable ROA was a primary search component, where the systematic review also helped the researchers to compare all the past research to see the statistical approach and method used by them to analyze the secondary data. This approach of reviewing the articles in a systematic manner helped the researchers to identify the research gap and provides a guiding pathway to achieve the desired results through appropriate analysis.

Note: The search terms used in Systematic Literature Review were related to financial performance, Auditing, Human value creation, knowledge assets, intangible assets, direction, command, and control. These search terms were useful to take the most appropriate articles for research usage.

*Table 1 - Systematic Literature Review*

|  |  |   |
|--|--|---|
| (Gupta & Sharma, 2014)                   | The researchers have considered the South Korean firms to measure the CG. Return on Assets indicating the firm's performance and variables such as Board management, Committee were taken to represent corporate governance.   | The research concluded that Indian firms follow stringent corporate governance practices like the United States and South Korea follows stakeholder's form of corporate governance. Both models have a different influence on the firm's financial functioning and position.  |
| (Hatane, Tertiadjajadi, & Tarigan, 2017) | Considering the importance of corporate governance, the researchers have tried to explore the effect on the firm's value and its indirect effect on Intellectual Capital. The area chosen for conducting the research is firms belonging to Malaysia and Indonesia. Tobin's Q is employed while measuring a firm's value and professional ownership, board size, board composition as independent variables proxying corporate governance. | The research concludes that the shares owned by all the shareowners in the board have played a vital role in improving the IC. This concept differs from Malaysian and Indonesian's context. The researchers have also stated that in future the similar type of research can be conducted in other sectors and geographical areas. |
| (Alfraih &                               | Taking into consideration the Kuwait Stock   | The researchers have strongly   |

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- Almutawa, 2017) Exchange (KSE) the researchers wanted to explore the link between the corporate governance and IC disclosure. concluded that the quality of all the information disclosed in various formats such as annual reports, through board meetings have a very high impact in leveraging the firm's corporate governance practice. The role of the administration plays a significant role in maintaining simplicity with the connected stakeholders.
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- (Korutaro Nkundabanyanga, M. Ntayi, Ahiauzu, & K. Sejjaaka, 2014) Intellectual capital might look like a very simple term but to run the firm a lot of knowledge, values, creativity, and the information is needed. In this research, the researchers have used a qualitative approach and interview the Board of Directors and managers for the data collection. Behavioral constructs (from the board) has a lot of influence on the firm's FP. If IC has been mediated then there is a positive influence on the firm's performance. Chances of improvement financially may be high.
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- (Bhattacharjee, Chakraborty, & Bhattacharjee, 2017) The author has mentioned about the importance of adequate disclose regime. Considering the problems faced by financial institutions in the dynamic competitive environment i.e. banking sector in Bangladesh which was selected for the study. The researchers wanted to find the IC disclosure bears a significant impact. The variables have been selected using a content analysis from various secondary sources to measure IC. Some important components like the size of the audit team, board members size and members of the board has a very strong impact on the IC. They have concluded that IC can be a tool to defeat the competition and to run the firm is smoothly the role of IC is much important.
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- Braendle, Farah, and Balian (2017) have tried to deal with the logical association among IC, CG and its impact on FP. For this purpose, the researchers have considered public sector enterprise called the Gulf Cooperation Council (GCC). The authors have defined cooperate governance as a tool which aims at maximizing the worth of the firm keeping in mind the importance of the stakeholders. The authors have mentioned the importance of Human Capital and its influence in enhancing the firms' value by listing few of its types such as: Human capital comprising key variables such as (information, skill, proficiency and competencies of the manpower), structural capital comprising (intangibles, software and trademarks) and social capital which is comprised of interactions and communications with the internal and external parties associated with the firm. The researchers have concluded that the public firm's name and fame are significantly related to knowledge assets. And this knowledge assets is responsible for the overall performance of these enterprises which guides the organization's positive transformation stages.
- Basyith (2016) attempted to study the role of IC and CG on the FP. The researcher has mentioned in the paper that after the 1997-1998 crisis the Indonesian government has become strict in making sure that corporate governance has been executed properly. Thus, the term corporate governance has been defined as a mechanism and process, which is controlled by the firm to achieve the goal. The research paper also highlights the role of the Cadbury committee in framing new policies for corporate governance highlighting the importance of accounting systems, which are used to control risk and failures. In the corporate governance process disclosure and transparency can facilitate the accuracy of the firm has been a strong statement of the researcher. This research was conducted on 120 selected companies in Indonesia using a

balanced panel method. In this research, the firm's performance is measured through the performance metrics ROA and Tobin's Q. To measure the IC components such as Structural Capital Efficiency (SCE), Capital Employed Efficiency (CEE) were used. Using a lineal-equation the relationship between the study variables was analyzed.

Hatane et al. (2017), have explored interlink between IC and CG and its effect on the firm's value. The researchers have considered Indonesian and Malaysian firms dealing with consumer goods for the study. A total of (N=25) firms have been selected to draw data and the study period was five years (2010-2015). The authors have mentioned that after the crisis in 1997, the government has brought in strict rules and regulations and Malaysian companies have adopted the Unitary and One-tire-Board system to regulate the cooperation's. The researchers have explored variables such as Corporate Governance, Managerial ownership, Intellectual capital and firm's value in this research work. Because of the analyzed data, the researchers have concluded that the board members and the shares held by them have a certain effect on IC. Board characteristics, experiences, and skills are all important factors, which leads to positive CG.

From the above listed selected literature reviews, it is clear that Intellectual Capital, Corporate Governance and firm's performance significantly impact on the success of a state and for the growth of all the connected stakeholders. This joint effort by exploring all the three study variables has been done in various countries in various sectors but not with regard to Conglomerates. Thus, the research gap and motivation is to investigate the role of CG on PF and Nigerian Conglomerates firms IC as a mediating variable. Systematic Review approach has helped in streamlining to proceed with further research. The success of an organization is because of not only the quality work and transparency in work; it is a collective effort of every employee working for the common goal. The knowledge, skill, creativity, business training, development, etc. are the major key factors, which shapes the human assets. This concept of intellectual capital is otherwise called Intellectual Property (IP) of a firm categorized under intangibles and goodwill in the balance sheet. Bontis, Chua Chong Keow, and Richardson (2000) says that the three elements of IC known as Human, Structural and Customer Capitals have a great influence on firms' structure and function irrespective of the nature of the industry. Firer and Stainbank (2003) avers that the firm's performance metrics such as profitability, performance, and market valuation has been influenced by three main components known as Physical, Human and Structural Capitals. Thus, most research work clearly states that one of the major sources of a firm's performance is the efforts of Human Capital. There are certain elements such as people (Board of Directors, Senior Managers, and Auditors) who perform an influential task in value creation for the firm. The value which is created has to be maintained and retained which is even more important. Thus, conformance dimension and performance dimension are two success mantra for the Conglomerates. Apart from that, compliance of laws, rules, and regulations are an important and integral part of corporate governance and hence it is called the conformance dimension (Al-Azzam, 2015; Mahmoud Abu-Tapanjeh, 2006). The firm has to take a keen interest in the follow-up of moral ethics. On the other hand, the working pattern of the firm as per the pre-framed corporate objectives. To achieve this objective the efforts of the human resource is important and hence the bond between IC and CG is formidable.

## Methodology

### Scope of the Study

Rejuvenating the Nigerian economy and improving the economic reform has been a major hard work by the government of Nigeria. Lucrative growth has been a major drawback in terms of Nigerian firms. The government has now come out with strong rules and regulations which are governing the ethical practices. Thus, this study considers the Nigerian conglomerates.



## Model Specification

Ex-post factor design was applied for this research. Six conglomerate firms quoted of the NSE constitute the population of the research between 2007- 2016. While five out of six companies are the working sample for the study; Transnational Corp. Plc is excluded from the sample as it was listed in November 2006. Archival data generated from the firms’ financial statements were used. This study adopts Zhao, Lynch Jr, and Chen (2010) approach. To them, the independent variable does not necessarily influence-dependent variable and sometime it may mislead, the significance of the indirect effect is the requirements. Model of this study was adopted from the work of Wahba and Elsayed (2015) with modification.

$$ROA = f(BS, BI, IO, VAIC, FAge, Lev, FSize) \text{ _____ (1)}$$

$$VAIC = \alpha_0 + \beta_{1it}BS + \beta_{2it}BI + \beta_{3it}IO + \beta_{4it}FAge + \beta_{5it}Lev + \beta_{6it}FSize + \epsilon_{it} \text{ _____ (2)}$$

$$ROA = \alpha_0 + \beta_{1it}BS + \beta_{2it}BI + \beta_{3it}IO + \beta_{4it}VAIC + \beta_{5it}FAge + \beta_{6it}Lev + \beta_{7it}FSize + \epsilon_{it} \text{ _____ (3)}$$

### Where:

- $a_0$  = Constant
- $\beta_1$  to  $\beta_7$  = Coefficient of the parameters
- $\epsilon_{it}$  = error term
- $i$  = firm
- $t$  = time

Table 2 - Operational Definition of Variables

| <u>Dependent Variables:</u> | <u>Definition</u>  |
|-----------------------------|--|
| ROA                         | <p><b>Brigham and Houston (2012)</b> say that the net income, which has been earned before tax to the total asset, is the Return On Assets. The shareholders’ value maximization can be analyzed through ROA because the higher ROA it is an indication that the firm has made use of the assets in an efficient way.</p> $ROA = \frac{\text{Net Income before Tax}}{\text{Total Asset}} \times 100\%.$ <p>The Return On Assets varies based on the firm's operations in various industries. This is a very good indication for the investors to know how well the firm is converting the investments of it into (Net Income). It can be said that ROA and ROE (Return on Equity) are twin tools applied by a firm to know its financial position. However, ROE measures the return on a firm’s equity omitting the liabilities and hence ROA is most suitable and the same has been used in this study.</p> |
| <u>Mediating Variables:</u> |  |
| VAHU                        | <p>A number of ways can enhance a firm’s bottom line and vales. For example, the cost of goods sold, the quality aspects, management style, etc. However, the most important one is the human resources who are otherwise called “Human Assets”.</p>   |

The financial profit or the financial value, which the employee asset brings for the success of an organization, is called Human Capital. This capital is a primary tool for the success of the firm.

$$\text{(Pulic, 1998). } VAHC = \frac{VA}{HC}$$

**VACA**

Value Added Capital Efficiency, is a prompt tool, which is used to do a comparison between the values added with the physical assets of a firm. In general, this tool is a key determinant for investors to take an investment decision. The financial health of a firm is an indication of capital efficiency.

$$\text{(Pulic, 1998). } VACA = \frac{VA}{CA}$$

**STVA**

Structural Capital Value Added, according to Bueno et al. (2004) every business owners are in the urge of creating a legacy in the world market. This is possible only by creating values and these values are all because of Human resources and customers. One of the most important aspect to scale the business is “Structure and Process’ and this is unique from business to business. Thus, SC (Structural Capital) has to be followed and documented to know its impact on the financial progression of the firm.

$$\text{(Pulic, 1998). } SCVA = \frac{SC}{VA}$$

**VAIC**

Value Added Intellectual Coefficient is the aggregate of these indexes; thus: **VAIC = VAHU + VACA + STVA**. These intangible valuables cover the knowledgeable people of the firm, the relational capital talks about the efforts and values left by each and every employee and the structural capital which emphasis more on administrative and managerial structure needed for the firm’s success. Thus, Value Added IC is a combination of all the mentioned capitals.

**Independent Variable****BS**

Directors on the board number (Anderson, Mansi, & Reeb, 2004; Garko, 2015)

**BI**

Directors on the Executive cadre to the summation of all the directors.

**IO**

The fraction of institutional shareholding to the overall number of shares in issues.

**Controlling Variables****Firm Size**

**Babalola (2013)** Every step taken by the management is only to take steps to cope-up with competition and to achieve recognition in the global markets. The size of the firms, all depends on various factors such as the nature of the market in which it operates the technological usage, transactions, and its global operation. The size of the firm has a significant effect on performance.



|                 |   |
|-----------------|---|
| <b>Firm Age</b> | Age of the firm has been on the debate platform across many industries by many researchers which has different perspectives. The firm's age is also in consideration of the firm's listing age. The experience of the management, the brand identity, the supplier relationship, the comfort of the investors is all dependent on the firm's existence in the market as a successful leader. (Ujunwa, 2012)   |
| <b>Leverage</b> | Traders and investors invest based on the firm's financial standpoint. The story of assets and returns and also in understanding how the assets have been used. The maximization of profit (profit maximization) is not just relevant to business but for individuals related to the firm. Debt is an integral part of the financial leverage and this is acquired not only for the needs of the capital but also enlarge the profits accruing to the shareholders (Berger & Udell, 1998; Chang, 2010).<br><b>Leverage = TD/TA (i.e. Total Debt and Total Assets)</b> |

## Hypothesis

Hearts of this research is taking assumptions into reality. This is possible through a keen understanding of various research dimensions asking research questions to get more knowledge and research insights. From the literature reviews and research motivation, the researchers have identified the most suitable variables and the inter-relationship with the other variables. The relationship between the variables is a new dimension, which has not been explored in the past, and hence to fill this research gap the researchers have identified the most promising variable, which has framed the conceptual model using qualitative software to understand the most promising variable, which can be used for further research analysis. Thus, the conceptual model and the framework will help the researchers to abstract many new assumptions and research questions, which will be helpful to frame assumptions.

H0: IC, CG has no impact on Performance of Conglomerates in Nigeria

Ha: IC, CG has an impact on Performance of Conglomerates in Nigeria

## Results and Discussion

Presented hereunder is the analysis and interpretation of the studies' results of the data sourced from the financial accounts of the selected conglomerate's firms in Nigeria.

*Table 3 - Descriptive statistics of variables*

| Variables | Obs | Mean    | Std. Dev | Min     | Max.    | Pr. (Skewness) | Pr.(Kurtosis) |
|-----------|-----|---------|----------|---------|---------|----------------|---------------|
| ROA       | 50  | 0.0238  | 0.1281   | -0.3183 | 0.3642  | 0.0794         | 4.3200        |
| BS        | 50  | 4.9167  | 4.4618   | 0.0000  | 11.000  | 0.0000         | 0.0000        |
| VAIC      | 50  | 40.541  | 80.222   | -1.0073 | 280.349 | 0.0269         | 18.0700       |
| IO        | 50  | 0.6108  | 0.1863   | 0.0000  | 0.9000  | 0.0056         | 13.4800       |
| BI        | 50  | 0.0414  | 0.0624   | 0.0000  | 0.4100  | 0.0000         | 54.5600       |
| F-size    | 50  | 10.0476 | 0.2523   | 9.4500  | 10.4696 | 0.2850         | 1.9800        |
| Lev       | 50  | 0.2020  | 0.2429   | 0.0000  | 0.9975  | 0.0573         | 13.5700       |
| Age       | 50  | 35.500  | 3.3579   | 29.000  | 42.000  | 0.1432         | 2.2700        |

Source: Stata output



Table 4.1 depicts 2.3% as the mean score for return on assets. It implies that averagely conglomerates firm earned a profit of 2.3% on assets employed. The maximum profit earned was 36% within the period under study, with a loss of 32%. This implied that conglomerates firms did not earn a reasonable profit under the period of the study. The result further indicates that deviation from the standard deviation is 0.1281 signifying a slight variation between the sample firms. The board size has a mean score of 4.9, which implied that the average board comprised 5 members with a maximum of 11 members, the standard deviation of 4.4618 indicates moderate variation among sample companies. The value-added intellectual coefficient shows a mean score of 40.54 and the maximum value of 280.34, the standard deviation of 80.222 indicates less variation among sample companies. Furthermore, 61% of conglomerates firms shares on an average is owned by institutional owners, whereas the minimum shares owned by institutional owners is 0.00% while the maximum shares owned by them is 90%. Board independent shows a mean score of 4% and a maximum of 41%. The average firm size, which is measured as a log of assets' total, with mean score 10.05 whereas the maximum value of 10.47 and a minimum value of 9.45, the standard deviation of 0.2523 shows insignificant variation among sample companies. Leverage shows a total mean score of 20% and a maximum score of 99%. This implies that majority of the sample firms used debt as sources of capital because the minimum is 0.00. Deviation from the standard of 0.2392 suggests slightly variation between the sampled firms. Mean age average mean age of the sample firms 35 years 5 months, while the min.is 29 while maximum. Stands at 42, the standard deviation of 3.2% that implies an insignificant difference of ages among the sampled firms.

*Table 4 - Correlation between the Dependent and Explanatory Variables Model*

| Variable | ROA     | BS      | VAIC    | IO      | BI      | F-size  | Le     | Age    | VIF  |
|----------|---------|---------|---------|---------|---------|---------|--------|--------|------|
| ROA      | 1.0000  |         |         |         |         |         |        |        |      |
| BS       | 0.35944 | 1.0000  |         |         |         |         |        |        |      |
| VAIC     | 0.3507  | 0.2097  | 1.0000  |         |         |         |        |        | 1.74 |
| IO       | 0.1798  | -0.1123 | 0.3112  | 1.0000  |         |         |        |        | 1.52 |
| BI       | 0.0020  | 0.0079  | -0.2244 | 0.0036  | 1.0000  |         |        |        | 1.06 |
| F-size   | 0.4955  | 0.3469  | 0.3195  | 0.2001  | -0.0641 | 1.0000  |        |        | 1.09 |
| Lev      | -0.6295 | -0.5408 | -0.1928 | -0.0337 | 0.1738  | -0.3446 | 1.0000 |        | 2.19 |
| Age      | 0.0453  | -0.0848 | 0.1463  | 0.1347  | 0.0942  | 0.4952  | 0.1527 | 1.0000 | 1.44 |
|          |         |         |         |         |         |         |        |        | 1.86 |

Source: State Results Culled from Financial Accounts of the Selected Firms (2007-2016)

Table 4.2 depicts the association relating to the (DV=ROA) and (IVs) such as value-added intellectual coefficient, board size, institutional ownership, board independent leverage, firm size, age). Coefficient correlation ranges between -1 to 1. Table 4.2 indicates a moderate positive association involving Board size, VAIC and size of the firm on return on assets; this implies that an increase of Board size, VAIC, and firm size, all things being equal will lead to an increase in ROA. Similarly, a weak positive relationship exists between institutional ownership, board independent and age on ROA. On the contrast, a negative strong association exists between leverage and ROA with a coefficient of -0.6295, this indicates that conglomerates firm used more equity than debt capital. Moreover, the multi-collinearity test was carried out to ascertaining its existence or otherwise. Collinearity is where more than two of the independent variables or predictors are correlated which implies interdependence among the predictors or independent variables and if high in magnitude, adversely affects the predictive ability of the independent variables. VIF values ranging below 10 is accepted as proof of the collinearity absence (Ghasemi & Zahediasl, 2012). Hence, the predictive ability of the independent variables is not adversely affected by the relationship.

Table 5 - OLS Regression Results

| Model I            |         |       |       | Model II           |         |       |       |
|--------------------|---------|-------|-------|--------------------|---------|-------|-------|
| Dep (VAIC)         | Coeff   | t     | P>(t) | Dep(ROA)           | Coeff   | t     | P>(t) |
| Cons               | 4.7824  | 0.19  | 0.849 | Cons               | -1.3285 | -1.90 | 0.065 |
| BS                 | -0.0833 | -0.55 | 0.583 | VAIC               | -0.0004 | -1.72 | 0.092 |
| IO                 | 3.4074  | 1.21  | 0.235 | BS                 | 0.0097  | 2.49  | 0.017 |
| BI                 | -3.0923 | -0.37 | 0.717 | IO                 | 0.1694  | 1.79  | 0.080 |
| F-size             | -2.1848 | -0.76 | 0.452 | BI                 | -0.0773 | -0.51 | 0.616 |
| Lev                | 0.2633  | 0.10  | 0.919 | F-size             | 0.1230  | 1.49  | 0.144 |
| Age                | 0.4934  | 2.47  | 0.018 | Lev                | -0.1555 | -1.75 | 0.087 |
|                    |         |       |       | Age                | -0.0017 | -0.27 | 0.790 |
| R <sup>2</sup>     | 0.34    |       |       | R <sup>2</sup>     | 0.4048  |       |       |
| Adj R <sup>2</sup> | 0.2450  |       |       | Adj R <sup>2</sup> | 0.3048  |       |       |
| F- value           | 3.54    |       |       | F- value           | 3.94    |       |       |
| P- Value           | 0.0064  |       |       | P- Value           | 0.0023  |       |       |
| Hetttest           | 0.0000  |       |       | Hetttest           | 0.0334  |       |       |
| Hausman test       | 0.13    |       |       | Hausman            | 0.163   |       |       |
| Lag test           | 1.000   |       |       | Lag test           | 1.000   |       |       |

The model I regress mediator (intellectual capital) on the independent variable proxies by board size, institutional ownership, and board independent. The adjusted R2 has 24.5% which implies that changes in VAIC are caused to 24.5% by the variables selected while the remaining are of course by another variable outside the coverage of this study. The p-value indicates a significance at 1% level of significance, which can be confirmed by F- statistics of 3.54. It is an indication of model fitness for the analysis. Results from the multiple regressions reveal the negative and insignificant effect of BS and BI on IC represented by VAIC. The finding is inconsonant with the findings of (Al-Musali & Ismail, 2014; Vermeulen, 2014) while contrary to that of Hidalgo, García-Meca, and Martínez (2011) and Veltri, Venturelli, and Mastroleo (2015). In addition, institutional ownership shows an insignificant effect on intellectual capital.

Model II analyze the effect of CG attributes on firms' FP using IC as mediating variables. This model has adjusted R2 of 30.48%, a p-value of 0.0023 and F-statistics of 3.94. This implies that the model is statistically fit. The result obtained indicates BS and IO to exhibit a positive and significant impact on FP, this implies that citrus para bus, the higher the size of companies as well as more shares owned by institutional shareholders the higher the profit. This is contrary to the findings of (Al-Musali & Ismail, 2014; Vermeulen, 2014), VAIC and leverage show negative significant impact on firms' FP, whereas the age of the firm and it is the corresponding size have no significant impact on FP.

## Conclusion

The three study variables known as CG, IC, and firms' FP has been widely researched in different sectors such as banking, finance industry, stock exchanges of different countries in large number and hence a lot of data is already available with this link. Once after the articles have been selected using utmost cares the knowledge the inductor Re the concept the ideas which were found from the perspective of different types of researches. This task of a systematic review of literature gives an idea to define the research Protocol in order to finalize the concept which has to be explored with the resource justification and hence the selection of the study variables for constructing a conceptual model and explaining the link between them was the secondary advantage of this method. The review of literature should always be a guiding path for the future analysis and hence once after the conceptual model has been established the hypothesis is framed. The hypothesis framed

and this research article is based on the assumptions and the tentative statements and the discussions which are from the research perspective on the past researches. One of the very important components of a systematic literature review is to find the very apt articles which can be used in order for the hypothesis development or for any other purpose of conducting a meta-analysis or a Meta synthesis analysis. After conducting the SLR it was found from different articles that the three study variables were widely explored in the past but very limited research with regard to conglomerates in the Nigerian context. This is how the research proceeded to establish a new research dimension.

This study has been conducted in the context of conglomerates in Nigeria considering Zhao et al. (2010) approach. The main purpose of this study was to find a mediating role of IC in a relationship between CG and FP (efficiency) of the firm. For this goal, most selected variables have been used on the regression model. From the analysis, the coefficient of BS increased to -0.0004 and BI to -0.0773 respectively, while the coefficient value of IO decreases to 0.1694. The effect of the mediating variable on the independent variables and control variable is not statistically significant, but the indirect effect of board size and institutional ownership are statistically negative and significant to performance. Therefore, the study concluded that there is a mediation effect of IC on the association of IO and FP. The concept of having many entities under one corporate management has become a new style in today's competitive world called "Conglomerate business structure". Emerging economies of the world have started to follow the concept of conglomerate operations for expanding in global markets and for creating an internal capital market. Brand dilution and accounts transparency become a few major problems faced by these firms. Conglomerates have influenced most of the private sectors of world countries. Countries like Korea, Philippines, Malaysia, India, Japan, Russia, and Pakistan are famous for factors such as multiple availabilities of human resources, Entrepreneurial scarcity, and Multi-market power to run the business and hence the concept of conglomerate has grown in leaps and bounds. Once a conglomerate has been established, it becomes mandatory to follow the rules and regulations to protect the interest of the related parties and hence the need for Corporate Governance is much needed. To run the conglomerate there is a very strong need for human capital as these firms spend a huge amount on them for training and development. Thus, the role of Intellectual Capital becomes the secondary key requirement after CG. Concisely it has to be stated that CG and IC are the key drivers of economic growth, which enhances the economy through the profitable functioning of the firms. Nigeria has grown in leaps in terms of technology, rules, and regulations, educations when compared with the past decade showing a growth. The manufacturing sector of Nigeria has shown steady growth in promoting the economy. Nigerians receive various benefits such as high stock dividends, International and global exposure and technological benefits in the present time. The reasons for sudden development are always on the debate platform and what is the role of the Nigerian Government in streamlining the operations is an unanswered question. Thus, the role of IC and CG with reference to Nigerian Conglomerates was explained through this research showing the real need. Taking this as the base paper, future researchers can study the role of Conglomerate in economic development.

## Suggestions

- A firm can win competitive advantage when employing human assets with needed knowledge and for conglomerate firms, it is the deployment of various knowledge assets pooled up together and hence there is a high chance for the firms to scale profits through performance. Thus, firms, which are under the conglomerate tag, can look forward to massive Intellectual Capital Investment (ICI) in order to keep pace to the current global reality.
- Conglomerate firms holding unique positions in various industrial setups can convert knowledge into profits by exploiting the non-financial and non-physical resources making a change in 100% resource utilization, advantage competitively nowadays rest in this knowledge capital and by extension success.

## Future Research

- The future researchers can classify intellectual capital into structural capital and organizational capital and can study its effect on the firm's performance through a multi-dimensional mediating effect.
- Firms' efficiency now mostly is determined by the growth and sustainability of intellectual capital from human assets perspective and hence the critical role of a firm in management style can be a theoretical study, which might lead to successful development of theory.
- The future researchers can also find new variables related to IC, which is qualitative in nature. A new theory can be framed just to measure IC for conglomerates.

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