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Capital Employed and Structural Capital Efficiency and Financial Performance of Listed Non-Financial Companies in Nigeria

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ABSTRACT
In today's international economy, every firm strives to outperform its rivals. Such businesses require both physical capital and intellectual capital to have a competitive advantage. The financial performance of listed non-financial companies in Nigeria was investigated in this study in relation to capital employed and structural capital efficiency. For the study, an ex-post facto research design was used. The population of the study consisted of the 85 listed non-financial enterprises in Nigeria, from which seventy-five (75) were chosen using the purposive sample technique based on the availability of data. The study was supported by the human capital hypothesis. Financial performance was measured by return on assets (ROA), while capital employed efficiency (CEE) and structural capital efficiency were used to measure human and structural capital, respectively.with Firm Size used as control variables. Secondary data from the surveyed firms was gathered over the ten-year period of 2012 to 2021, and panel regression analysis was performed employing STATA 16 application. The findings showed that while structural capital has a negative and substantial impact on the return on asset of listed non-financial companies in Nigeria, capital employed efficiency (CEE) has a positive and significant impact on this metric. To remedy structural capital's detrimental impact on financial performance, the study advises management of non-financial enterprises to increase capital employed and decrease structural capital investment.

Keywords: Intellectual Capital, Capital employed, Structural capital, Return on Asset, and financial Performance.

I. INTRODUCTION

Businesses in Nigeria, as in many other nations throughout the world, compile their financial statements after the close of the year, or the end of a specific period of time, which is most commonly one year, or twelve calendar months. By presenting assets and liabilities at their net book values, these financial statements serve the objective of determining the firm's financial performance and position, and consequently its net value (carrying amount) (Okoye, et al, 2019). However, disclosing intellectual capital is a crucial part of these financial disclosures that has been overlooked during financial statement production (Bayraktaroglu, *et al.*, 2019). Specifically, an intellectual asset is a non-monetary item that can be identified (Omoye, 2013) but has no tangible value. Capital employed and structural capital include intangible resources including expertise, technology, reputation, and organizational practices.Companies in the twenty - first century are increasingly emphasizing

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intellectual capital as they search for ways to make more effective use of their resources and remain competitive in a rapidly evolving market. This has resulted in a dramatic shift from production to knowledge - based economy (Lipunga, 2014).It's common knowledge that businesses that consistently reinvest in their employees' education and the development of new tools and techniques enjoy sustained success. A company's capacity to survive and grow in the economy depends more and more on expertise and other intangible assets (Latif et al., 2012). The development of organizations had also evolved in today's fast-paced economy in response to the swift advancement of information and technology.The competitive global economy of today requires company's ability to maintain a competitive advantage in the markets where it operates and creates value which depends on the efficacy of its structural and capital-employed types of intellectual capital.As a result, according to Bontis (2001), intellectual capital has emerged as a key factor in a company's sustainability. The degree of a firm's financial goals was achieved, in contrast side, is a metric of managerial efficiency and one of the main issues of corporate organizations. The numbers shown in an accounting record, especially those that reflect income (i.e., the profit and loss account), financial position (i.e., the balance sheet), and the flow of funds, are crucial for realizing financial objectives. Listed non-financial companies (NFCs) are basically into product manufacturing, buying and selling. In other words, NFCs produce, buy and sell already manufactured goods and rely on customers, suppliers, shareholders, employees and technology to carry out business. The companies also require technology in form of trademarks, copyrights and computer software (structural capital) necessary operations that could generate revenue for the businesses. These IC components are in one way or the other a form of capital or funds introduced into the business of NFCs. While a considerable number of empirical studies exist in Nigeria relating intellectual capital with financial performance, most of these studies were carried out on deposit money banks, consumer goods, insurance and information and communications technology sectors, industrial goods sectors. Only a few studies have been carried out on non-financial firms in Nigeria. These studies include those by Akhter (2020), who looked at the relationship between intellectual capital, financial performance, and firm market value in countries in south Asia, and by Enekwe et al. (2022), who looked at the relationship between intellectual capital and financial performance in Nigeria's publicly traded consumer goods companies. The research conducted by Nnubia et al. (2019) examined the impact of intellectual capital on the financial performance of Nigerian non-financial enterprises between 2007 and 2016. Because of the passing of time, the findings of this study cannot be applied to decision-making. Therefore, it is necessary to ascertain how structural capital and capital deployed affect corporate performance. Two hypotheses are proposed to direct this investigation, and they are as follows:

H_{01}: Capital employed has no significant effect on return on asset of listed non-financial companies in Nigeria

Ho_2: Structural capital has no significant effect on return on assets of listed non-financial companies in Nigeria

II. LITERATURE REVIEW

2.1.1 Capital Employed

Different settings can affect how capital utilized is defined. The term "capital employed" describes how much capital the company has invested in both current and non-current assets. It is equal to the sum of shareholders' equity and long-term obligations less current obligations. It is equivalent in terms of assets to working capital plus non-current assets. In a nutshell, it's the quantity of capital a business needs to run and a sign of how it is allocating its funds. Two common strategies for financing the money are owners ' equity financing and net debt. Accounts receivable, stock, and machinery and equipment are frequently included (Nik Maheran et al, 2009).According to Onyekwelu and Ubesie (2016), the capital employed efficiency (CEE) ratio will be utilized to determine how much value has been added overall to the book value of assets. Calculated by dividing value added (VA) by capital employed, capital employed (CE) will be regarded as financial capital and capital employed efficiency (CEE) (CE). It serves as a gauge of managerial effectiveness in relation to sales, profitability, and other performance metrics, as well as in comparison to other businesses operating in the same industry. Specifically, Capital Employed Efficiency (CEE) is calculated as Value Added (VA) / Capital Employed (CE). The capacity to produce revenue is impacted by the sum of money utilized, so using capital effectively can boost a company's success.

2.1.2 Structural Capital

A company's structural capital refers to its ability to adhere to the procedures and structures that

support employee efforts to generate the highest suitable intellectual performance as well as increased profitability, such as its business functions, production processes, business culture, management philosophies, and all forms of intellectual property are belonging to the company. Even if a person is intelligent, a company's procedures and practices could prohibit its intellectual capital from operating at its peak potential. The infrastructure that enables individuals to perform to their full potential includes the organization's ability to access the market, as well as its organizational structure, intellectual property rights, and ability to support employee productivity (Bontis, 2000).The idea that structural capital exists enables the production of intellectual capital and serves as a conduit for and processor of human resources into intellectual capital. After the contribution brought about by human skill, the expertise or "know-how" that belongs to the enterprise becomes structural capital (Bontis, 1998). What belonging to the businesses is their structural capital, which includes things like organizational system, relational capital, and inventive capital (Roos et al., 1997). Like what was stated above, Nik Maheran et al. (2009) stated that structural capital includes the supporting infrastructure that enables an organization to utilize its intellectual capital.Patents, trademarks, and databases are under the category of tangible assets provided by a firm. Completely intangible success falls under the category of culture, openness, and employee trust. This capital was produced by the processes or goods that company has developed over time and will stay with the business even after person leaves (Nik-Maheran et al., 2009). As a result, companies with strong structural capital will foster an environment where people feel free to experiment, learn, and practice (Bontis et al., 2000).

2.1.3 Financial Performance

The financial performance of a company is significant to stakeholders, investors, and the economy at large. The returns on their investments are what interest investors. A successful corporation will reward its investors more favorably. A company's financial performance can boost employee salaries, enable it to provide clients with high-quality goods or services, and boost its reputation in the community where it does business. A company that performs well can produce more profits, which can open up new chances and eventually lead to job creation and increased personal wealth. Rahul (1997) defined a company's performance as its capacity to meet its target objectives using the resources at its disposal. According to Suleiman (2013), a company's performance is the outcome of how successfully it evaluates or plans to achieve its objectives and aims.

An indicator of a company's ability to effectively employ resources from operational processes to create income is financial performance. Financial performance was described by Van Horn (2005) as referenced in Yusuf and Abudulkarim (2021) as a subjectively indicator of how well a company can utilise resources from its main line of business to create income. According to Pandey (2010), this phrase is used as a generic indicator of a company's overall financial health. Organizations theory and strategic management are the sources of study on the firm's financial success.

2.1.5 Return on Asset (ROA)

According to Tarideh (2013), return on assets is a metric that assesses the efficiency of the assets used and displays to shareholders the earnings that the company made from its capital asset investment assets (Kamath, 2017). A company's investment return is a better indicator of how well its funds are being utilised (Tarideh, 2013). Return on assets is a metric that users can use to evaluate how well a company business governance structure safeguards and supports the management performance of the business because management are in charge of the company's economic activity and asset utilisation. Tukur and Abubakar (2014) as well as Matanda et al. have successfully used return on assets (2015).

Return on Assets = Net Income ÷ Total Assets

Return on assets (ROA) is a ratio that reflects the assets evaluated by sales volume, according to Lyn and Aileen (2008). The greater for the business will be a higher ratio. The rate of return will therefore be higher. The higher the company's profits, the more shares of the company will be purchased by shareholders, hence the higher the ROA. The quantity of profits realized in relation to the degree of investment in total assets is demonstrated by return on assets, it was claimed. The greater this ratio, the more efficiently the corporation uses its assets to produce net income. Since the rate of return will be higher with a higher ROA, the company's performance will be more successful.Investor interest in the company will grow because of this. Because it can offer significant benefits (returns) for investors, a company's increased attractiveness makes it more in demand by investors. In other words, ROA will affect the stock returns that investors will tolerate.

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2.1.5 Firm Size

Due to economies of scale, size of a corporation plays a crucial part in the current global trend of competing with rivals via reducing costs and taking and holding additional possibilities. Furthermore, based on this idea, the firm's size is a factor that affects the firm's profitability, and various specialists have found a positive correlation between size and profitability. In their own contribution, Akinyomi and Olagunju (2013) argued that business size has been acknowledged as a crucial element in describing organizational success and that several research have attempted to examine the impact of firm size on profitability. Big businesses, according to Jasch (2013), have the potential to make more money because they have a larger market share. Therefore, depending on these circumstances, larger enterprises operate in more lucrative markets with less rivalry. Researchers that use empirical methods in corporate finance likewise view firm size as a crucial and essential business characteristic. They also note the "size impact," which describes how, in many cases, firm size affects the dependent variables. The above-mentioned business size is chosen as the study's control variable.

2.2 Empirical Review

Enekwe et al. (2022) conducted research on the effect of intellectual property on the financial performance of publicly traded consumer goods companies in Nigeria in 2022. One of the specific objectives was to investigate the impact of capital employed (CE), human capital (HC), and structural capital (SC) on the return on assets (ROA) of listed consumer goods companies in Nigeria. Return on assets serves as a proxy for the dependent variable financial performance, while human capital efficiency (HCE), structural capital efficiency (SCE), and capital employed efficiency (CEE) serve as proxy measures for the independent variable intellectual capital.The ex-post facto research method, which utilised secondary data from the annual reports and financial statements of four listed consumer goods businesses in the Nigerian economy, covered a time period of ten (10) years, from 2010 to 2019 both years inclusive. This investigation was based on resource-based theory and knowledge-based theory. In order to do the Panel Ordinary Least Square (OLS) for the study, a statistical tool called E-views version 9.0 was used. The multiple regression model was used to determine the extent of the influence of the independent variable (intellectual capital) on the dependent variable (financial performance) of the businesses under investigation.According to the results of the regression analysis, human capital efficiency (HCE) had a positive and significant impact on the return on assets (ROA) of listed consumer goods companies in Nigeria, whereas structural capital efficiency (SCE) and capital employed efficiency (CEE) had negative and insignificant effects. According to the research's findings, the researcher suggested that efforts should be made to raise the intellectual capital of businesses by first hiring highly qualified staff members as well as by educating and motivating them. Human capital efficiency has been identified as the main driver of value creation, particularly in return on assets. Businesses should also invest in training and programs that help them leverage information technology to increase their structural capital. The researchers, however, did not conduct the necessary diagnostic test to support the use of panel ordinary least square regression.

Aluwong (2022) examines the effectiveness of Nigeria's intellectual capital by taking samples from listed non-finance companies that trade on the Nigerian Exchange Group market during a ten-year period, from 2011 to 2020. The purpose of the study was to examine the relationship between the financial performance of listed non-financial enterprises in Nigeria and the efficiencies of structural capital, capital employed, human capital, and value-added intellectual capital. Thirty firms were chosen for the study's sample using a purposive sampling technique, which used a longitudinal design. The study's dependent variable was financial performance as measured by return on assets; the study's independent variables were capital employed efficiency, value-added intellectual capital coefficient, capital employed efficiency and structural capital efficiency; and leverage was used as the study's control variable. Regression analysis was used to gather secondary data from the sampled firm's financial statements. The study's empirical findings support the finding that, of the four independent variables used in the analysis, only the variable measuring human capital efficiency had a negligible impact on the performance of listed non-finance enterprises in Nigeria. The study does find that value-added intellectual coefficient, structural capital efficiency, and capital employed efficiency all significantly boost business performance. According to the report, managers should give structural capital a high priority and increase their expenditures on human capital tools like training and continuous learning. Once more, the lack of diagnostic testing in this study raises concerns about the validity of the test results.

Using a sample of twenty-four (24) multinational corporations for a ten-year period between 2010 and 2019, Haruna (2021) looked into the impact of intellectual capital on the performance of multinational enterprises in Nigeria. The study's goal was to look into how Nigerian multinational corporations' financial performance was impacted by their use of capital, human capital, and structural capital. In the study, the price-to-earnings ratio was utilized as a stand-in for performance, and the capital employed, human, and structural capital efficiencies were used as stand-ins for the independent variables of intellectual capital. As control variables, the study examined firm age, size, and revenue growth.The study used a panel regression technique for data analysis, a secondary data source, and a longitudinal research design. The outcome showed that the performance of multinational corporations operating in Nigeria was considerably and favourably impacted by capital employed efficiency. Contrarily, neither human capital efficiency nor structural capital efficiency have an impact on how well multinational corporations do in Nigeria. The study recommended that businesses invest more in revenue-generating ventures because they considerably enhanced businesses' financial performances. The market worth of enterprises can be tested using the price-earnings ratio, which is utilized as a proxy for financial performance rather than the contribution of intellectual capital.

The impact of intellectual capital on the financial performance (FP) of pharmaceutical companies listed on the Nigeria Exchange Group was evaluated by Solanke and Muhammed in 2021. (NEG). The goal of the study was to determine how intellectual capital affected Nigeria's publicly traded pharmaceutical companies' performance. The study considered a sample of six pharmaceutical businesses from 2009 to 2019. Value-added intellectual coefficient, capital employee efficiency, structural capital efficiency, and human capital efficiency were the independent variables, and return on asset was utilized to measure financial performance. However, the study took age, leverage, and firm size into account.Secondary data was gathered from the selected companies' financial statements and analyzed utilizing multiple regression approach. In comparison, when the results were consolidated, it was discovered that value added intellectual coefficient has a positive significant effect on financial performance. The study discovered that when the data was decomposed, human capital efficiency, structural capital efficiency, and capital employed efficiency have negative significant effects on financial performance using return on asset. According to the survey, pharmaceutical companies in Nigeria should increase their expenditures on educating and retraining employees as well as human resources administration.

From 2015 to 2019, Tangngisalu (2021) looked at how intellectual capital affected the financial performance of property and real estate companies listed in Indonesia. The study's goal was to examine how intellectual capital affected listed property and real estate companies listed in Indonesia's financial performance. The population consisted of all 46 listed property and real estate companies; 18 companies were chosen as a sample using the purposive selection method. The study utilized a quantitative research approach and used secondary data that was taken from the annual reports of the sampled companies. The study's data were analyzed using multiple linear regression and descriptive statistical methods.additional worth Value-Added Capital Employed (VACA), Value Added Human Capital (VAHU), and Structural Capital Value Added (STVA) were used to measure intellectual capital, along with the intellectual coefficient and its component. Financial performance was evaluated using the price to book value ratio. The findings demonstrated that Value Added Capital Employed (VACA), Value Added Human Capital (VAHU), and Structural Capital Value Added (STVA) all significantly and favourably influence financial performance. The study advised that businesses and other business organizations start using the technique of intellectual capital reporting and human assets accounting disclosure.

The impact of intellectual capital, financial performance, and market value of enterprises in south Asian nations was studied by Akhter (2020). The study's goal was to assess how capital utilized, structural capital, and human capital affected the financial performance and market value of enterprises in south Asian nations. Pakistan, Bangladesh, and India are among the nations. For a period of six (6) years, from 2009 to 2014, 100 non-financial enterprises were chosen from each of the countries using the judgmental sampling technique. The secondary data that was taken from the companies' public financial reports and analyzed using concurrent regression. The dependent variables were Return on Equity, Margin Ratio, Revenue Growth, and Return on Asset. We measured intellectual capital using a modified Pulics (2000) VAIC Model. According to the results, capital employed in the form of structural and

human capital has a positive significant impact on return on equity, revenue growth, margin ratio, and return on asset, while capital employed in the form of relational capital has a negative insignificant impact on return on equity but exhibits a positive significant impact on margin ratio and return on asset. The study's proposal was that enterprises should report their intellectual capital to increase stakeholder involvement in their operations and lower their agency costs.

Nnubia et al. investigated the effect of intellectual capital on the financial performance of non-financial firms in Nigeria from 2007 to 2016. (2019). The primary objective of the study was to investigate how capital employed efficiency, human capital efficiency, and structural capital efficiency affected the financial performance of non-financial firms in Nigeria. The 113 listed non-financial companies on the Nigerian Stock Exchange made up the study's population. Twenty-one (21) enterprises were selected as the sample using a purposive sampling technique. Ex post facto research design was employed in the study. The sampled companies' financial statements were used to collect secondary data, which was then analyzed using the Ordinary Least Square regression method.Earnings per share and market to book value were utilized to indicate financial performance, while Pulic's 1958 Value Added Intellectual Coefficient (VAIC) technique was employed to quantify intellectual capital as the independent variable. The results showed that the financial performance of listed non-financial enterprises in Nigeria is significantly impacted by capital employed efficiency, human capital efficiency, and structural capital efficiency. In order to improve stakeholders' perception of the statement of financial position and note to the accounts, the study recommended that regulatory bodies earmarked a minimum standard for disclosing human resource costs in the financial statements of the listed enterprises.

shola and Akanni (2019) used a sample of 97 listed companies on the Nigerian stock exchange to analyze the relationship between intellectual capital and financial performance of firms in Nigeria from 1999 to 2014. The study's goal was to determine how capital utilized, human capital, and structural capital impacted the financial performance of Nigerian listed companies. Return on assets was used as a proxy for the dependent variable, financial success, while Pulic's (2002) value added intellectual coefficient was used to evaluate the independent variable (VAIC). The study used stable panel regression estimator and secondary data. They provided evidence that the Value-Added Intellectual Coefficient (VAIC) has a beneficial impact on listed companies' performance in Nigeria.Additionally, whereas the capital employed component is inversely correlated with the financial performance of listed companies in Nigeria, the structural and human capital components are positively correlated with financial performance. The study's results are constrained because the study's population was not specified. The report recommends that every company's corporate policy be geared toward effective management of its intellectual capital. This results from the possibility of higher performance being ensured by the efficient and effective management of an organization's intangible and intellectual resources.

In Indonesia between 2012 and 2015, Utami (2018) conducted an empirical analysis of the impact of Intellectual Capital components on business value. The population consisted of forty-five (45) Blue Chip Stock Companies registered on the Indonesia Stock Exchange, from which twenty-four (24) companies were chosen as the sample using the purposive selection technique. The study employed secondary data as well as a multiple regression analysis technique. Intellectual capital was calculated using the Value Added Intellectual Coefficient (VAIC) methodology. Firm value was represented by the price to book value ratio. The findings indicated that the business value is significantly influenced by both value added capital employed (VACA) and value added human capital (VAHU). Additionally, the impact of structural capital value added (STVA) on firm value is negligible.According to the study's findings, the company's operational processes, organizational culture, management philosophy, and all other types of intellectual property it has are ineffective and expensive at adding value for the company.

Ibrahim and Ogwuche (2018) conducted an empirical analysis of the impact of intellectual capital on listed manufacturing business market performance in Nigeria from 2009 to 2017. The purpose of the study was to determine how well-capitalized manufacturing firms in Nigeria that are publicly traded are affected by their use of capital, human capital, and structural capital. In the study, all 46 of the manufacturing companies that were listed on the Nigerian stock exchange as of 2017 were considered. We used Tobin Q to gauge market performance.Human capital efficiency, capital utilized efficiency, and structural capital efficiency were used to measure intellectual capital using the Value-Added Intellectual Coefficient (VAIC) measuring methodology. Leverage and firm size were employed as controls. The study employed the

pooled ordinary least square regression estimate technique and utilised secondary data taken from the annual reports of the sampled organizations. According to the study, market performance was significantly impacted negatively by structural and human capital, but favourably by capital deployed. As no diagnostic tests were performed, the use of pooled regression for analysis is questionable.

Utilizing a sample of 102 companies in the manufacturing industry sector listed on the Indonesia Stock Exchange between the years of 2012 and 2016, Prawira and Setiawan (2018) conducted empirical study on the impact of intellectual capital and its components on business performance in Indonesia. Examining the impact of capital employed, structural capital, and human capital on the financial performance of listed manufacturing enterprises in Indonesia was the study's primary goal. Regression analysis was used to analyze secondary data that was gathered from the listed companies' annual reports. Public Value-Added Intellectual Coefficient (VAIC) models were used to quantify intellectual capital, and return on asset, return on equity, and market-to-book ratios were used to gauge financial success.The study made use of secondary data and multiple regression analysis. They noted that return on asset, return on equity, and market-to-book ratio all significantly benefit from intellectual capital. More so than value added capital employed and structural capital value added, they discovered that value added capital employed, a component of intellectual capital, was the most significant value generator for company performance. The usage of multiple regression cannot be supported by pre-estimation testing.

A study on the impact of Intellectual Capital (IC) on the corporate valuation of companies listed in Nigeria was undertaken by Onyekwelu and Ubesie in 2016. The goal of the study was to examine the relationship between corporate valuation of listed companies in Nigeria and human capital efficiency (HCE), structural capital efficiency (SCE), and capital employed efficiency (CEE). From 2004 to 2013, three businesses were chosen at random from a group of six. The study used information from secondary sources and an ex-post facto research design. Utilizing the Value-Added Intellectual Coefficient (VAIC) Model created by Pulic (1998), which includes Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), and Capital Employed Efficiency, Intellectual Capital (Independent Variable) was quantified (CEEThe dependent variables were Market to Book Value Ratio and Earnings per Share. To examine the study's data, multiple regression and correlation analysis were performed. According to their findings, Market/Book Value is positively and significantly impacted by Human Capital Efficiency. However, capital employed efficiency shows a positive and small influence on earnings per share whereas structural capital efficiency has a negative and significant impact on market/book value.As a major factor in a company's performance, the report advises Nigerian businesses to make significant investments in the development of their human resources. They must also supply the infrastructure required to develop a strong human capital within the system. The size of the company under investigation restricts this study. Only three businesses were examined. This is not typical and cannot be extrapolated for a comprehensive research study.

2.3 Theoretical Framework

A theory is an explanation of regularities that are seen to describe an empirical finding. There are several ideas that attempt to explain intellectual capital, but none of them is widely acknowledged (Myers 2001). The following hypotheses are explained as they seek to relate intellectual capital with corporate performance:

2.3.1 Stakeholders Theory

Ian Mitroff first put out the stakeholder idea in his 1983 San Francisco-published book "Stakeholders of the Organizational Mind." Edward R. Freeman published an article on the stakeholder idea in California towards the end of 1983. The theory tries to deal with the "principle of who or what actually counts." The traditional view of a corporation, known as the shareholder view, contends that only the owners or shareholders are important, and that the business has a moral duty to put their needs and interests first in order to maximize value for them. The stakeholder model, on the other hand, argues that there are more parties involved, including as employees, customers, suppliers, financiers, governmental organizations, political organizations, business associations, and labor unions. Even rivals are occasionally listed as stakeholders because of the possible impact they may have on the company and its stakeholders.The perspectives on strategy based on resources, markets, and stakeholders are supplemented by the socio-political level. One well-known variation of stakeholder theory, known as the normative theory of stakeholder identification, seeks to identify a corporation's stakeholders before investigating the circumstances under which managers view these parties as stakeholders (the descriptive theory of

stakeholder salience). A company's relationships with other stakeholders, such as customers, suppliers, competitors, the community, and the government, as well as their varied interests, are represented by relational capital.

2.3.2 Knowledge Based Theory

A knowledge-based theory (KBT) was presented by Nonaka and Takeuchi in 1991 in response to criticisms of the resource-based theory (RBT). Grant (1996), who was quoted by Stam (2006), said that KBT stressed knowledge as the most important resource for a corporation. Because of their static character, difficulty of imitation, heterogeneity, and social complexity, proponents of this theory contend that knowledge-based resources are the fundamental factors that determine prolonged competitive advantage and financial success (Fenwick, 2011). Knowledge-based perspectives explicitly define knowledge, its nature, and its administration, whereas resource-based perspectives only gave an implicit description of knowledge. KBT defines knowledge as a collection of facts relating to people and other species (Stam, 2006). The former was alternatively known as tacit knowledge and the latter as explicit knowledge.People who support this approach contend that human knowledge includes everything related to employees and within their control. On the other hand, since non-human information is owned by the company rather than the company's employees, the latter have no influence over it. The relationship between tactic and explicit knowledge, however, is inverse because the non-human resource is necessary for the human resource to be helpful to the company. The concept said that in order for enterprises to obtain a competitive edge and generate favorable results, they must develop distinctive knowledge assets. Researchers like Grant (1996) and Ariely (2003), cited in Fenwick (2011), argued that the knowledge-based theory is an extended version of RBT because it views knowledge as a resource and organizations as heterogeneous entities dependent on knowledge assets. While proponents of the theory see it as a theoretical model, this argument was refuted by researchers who disagreed.

2.3.3 Human Capital Theory

The human capital idea was first put forth by Theodore Schultz in 1961, and Gary Stanley Becker further expanded it in 1964. Drawing on Schultz's study on returns on investment, which emphasizes the cost-benefit analysis of education and training, and a contemporary extension of Adam Smith's justification for salary differences across various occupations, Becker developed the human capital theory. Other all things being equal, personal incomes vary according to the amount invested in human capital, or the training and education that individuals or groups of workers undergo, according to Becker and other economists like Jacob Mincer. This is because the costs of learning the job are a very essential element of net advantage.Another expectation is that broad investments in human capital will equip the labour force with the necessary skill set to support economic expansion. Any activity that can increase the productivity of a single worker gives rise to human capital. Full-time education is all too frequently used as the main example. For employees, investing in human capital entails both direct expenses and losses in lost wages. The decision-makers analyze the appeal of various future income and consumption streams, some of which promise greater future revenue in exchange for higher immediate training expenditures and delayed consumption. In theory, returns on society investments in human capital may be measured similarly. Critics of the human capital theory, even in the field of economics, emphasize the difficulty of measuring important ideas, such as future income and the core concept of human capital itself. Not all educational investments ensure an increase in productivity as measured by employers or the market.

2.3.4 Resource-Based Theory (RBT)

Wernerfelt (1984) proposed the resource-based theory (RBT) hypothesis, which Barney (1991) expanded and heavily incorporated into Penrose's earlier work (1959). RBT's basic principle is that a company is made up of a variety of distinctive resources and capabilities that serve as the basis for long-term competitive advantage as long as they are valuable, uncommon, irreplaceable, and challenging to replicate (Barney, 1991). According to the theory, enterprises are made up of a variety of ill-suited moveable capacities. According to this theory, corporate performance may be tied to particular resources rather than industry structure, which is backed by strategy literature (Guthrie,et al., 2004). Human resources are the most important resource, according to Hall (1992) and Grant (1996), who split resources into three categories: tangible assets, intangible assets, and human resources.The study's anchor theories are the knowledge-based theory and the resource-based theory. In order to get the intended result, RBT outlines the study's underlying difficulties in terms of potential investments and effective resource usage. The core tenet of resource-based theory is that a firm is defined by a collection of resources

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that are specific to its existence and provide the basis for sustained competitive advantage.Edom, Inah, and Adanma (2015) split an organization's resources into physical and human assets to assist make this more understandable. Human resources are made up of an organization's workforce, which also includes its employees' experience, knowledge, skills, and social connections. Physical assets include plants, machinery, land, and buildings. While organizations, as heterogeneous entities, rely on specific knowledge assets to improve their performance, whether financial or otherwise, proponents of resource-based theory contend that efficient use of intangible assets can result in a competitive advantage and improved financial performance (Lazzolino&Laise, 2013). This work is supported by the resource basis hypothesis.

III. METHODOLOGY

In order to determine the impact of capital employed and structural capital efficiency on the financial performance of listed non-financial enterprises in Nigeria, this study uses the ex-post facto research design. A sample of seventy-five (75) listed non-financial companies (NFCs) were chosen using the purposive sampling technique from the total of eighty-five (85) listed non-financial enterprises on the Nigerian Exchange Group as of the end of 2021. Secondary data were gathered from the relevant period's public annual reports of the chosen companies, and regression analysis was performed using STATA version 16.By calculating the mean, maximum, and lowest values for each of the variable measurements, descriptive statistics was used to check for errors in the data set. To investigate the relationship between the variables, a Pearson correlation analysis was performed. After conducting panel regression tests for both the fixed effect and random effect models, the Hausman specification test was used to evaluate whether model—fixed effect or random effect—was most appropriate for the investigation. Finally, the specified regression models underwent the post diagnostic test, which is a robustness test to look for multicollinearity, heteroskedasticity, and serial correlation.

Model Specification

The study modified Aluwony's (2022) model as follows to assess the effects of capital employed and structural capital on the financial performance of listed non-financial enterprises in Nigeria:

$$ROA = B_0 + \beta_1 CEE_{it} + \beta_2 SCE_{it} + \beta_3 FSIZE_{it} + \varepsilon_{it} \quad \ldots\ldots (1)$$

Where:

ROA = Return on Asset
CEE = Capital. employed capital efficiency
SCE = Structural capital efficiency
Control Variables
FSIZE = Size of firm
B_0 = constant or intercept of the regression.
B_1-B_2 = coefficients of the explanatory variables
ε = error term.
i = firm
t = time

The aproiri expectation is that capital employed, and structural capital have positive and significant effect on financial performance

Table 1
Study Variablesandtheir Measurement

Variable Acronym	Variable Name	Measurement	Source(s)
ROA	Return on Asset	Profit after tax divided by total asset	Aluwony (2022)
CEE	Capital employed efficiency	Value added divided by capital employed = VA/CE CE = Total assets less Intangible assets	Enekwe et al (2022)

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SCE	Structural capital efficiency	Structural capital / Value added SC/ VA where SC = VA – HC SCE = SC/VA HC = Staff cost VA = Value added	Nnubia et al. (2021)
FSIZE	Firm Size	Log of total Assets	Yusuf &Abdulkarim, (2021)

Source: Author's Compilation, 2022

IV. RESULTS AND DISCUSSION

The results of the study variables (return on asset, human capital efficiency, structural capital efficiency, and company size) that make up the descriptive statistics are shown in Table 2 below along with their Mean, Standard Deviation, Minimum, and Maximum values. The findings are explained below.

Table 2 ***Descriptive statistics***

Variable	Obs	Mean	Std. Dev.	Min	Max
Roa	750	1.811	17.001	-49.92	52.814
Cee	750	.234	.278	-1.22	5.85
Sce	750	-5.818	5.729	-0.431	18.68
Fsize	750	7.108	.82	5.239	9.306

Source:Stata 16 Output Results

The descriptive statistics for the dependent and independent variables are shown in Table 2. (ROA, CEE, SCE and FSIZE). The variables' standard deviations range from 0.278 to 17.001. The structural capital efficiency and return on asset have standard deviations of 5.729 and 17.001, accordingly, whereas the capital employed efficiency has the lowest standard deviation of -1.22. Additionally, a mean ROA value of 1.811 is included in the Table. During the study period, ROA had values as low as -49.92 and as high as 52.81. The Table 2 showed that the capital employed efficiency had a mean amount of 0.234.During the duration of the study, capital employed efficiency ranged from -1.22 to 5.85, with -1.22 being the lowest result and 5.85 being the highest. Like this, the table demonstrated that structural capital and company size had mean values of -5.818 and 7.108 over the course of the study, respectively, with minimum and highest values of -0.431 and 5.239.

Correlation Matrix

The relationship among capital employed, structural capital, and financial performance as measured by capital employed efficiency, structural capital efficiency, and return on asset, respectively, is shown in Table 3 below, with company size serving as a control variable. It includes the study's variables' Pearson pairwise correlation coefficients. In Table 3 below, the correlation matrix is displayed.

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Table 3 Results of correlation analysis

	roa	cee	scefsize	
roa	1.0000			
cee	0.3052	1.0000		
	0.0000			
sce	-0.2289	0.0310	1.0000	
	0.0000	0.3945		
fsize	0.1771	0.0028	0.0718	1.0000
	0.0000	0.3977	0.0483	

Source: STATA 16 output Results

A measure of the strength of the link between two variables is correlation. The association between the study's dependent and independent variables is shown in Table 3 above. The relationship between return on asset (ROA) and capital employed efficiency (CEE), which has a low positive correlation of 0.3052 (30.52%) and is significant at 5% as indicated by the p value of 0.0000, suggests that for every unit increase in CEE, there will be an equal increase in return on asset of 0.3052 units.In contrast hand, structural capital efficiency has a low negative relation with return on asset of -0.2289 (22.89%), which is significant at 5% as revealed by the p value of 0.0000. This suggests that a percent increase in structural capital will result in a 0.2289 unit decline in return on asset, while firm size (FSIZE) has a positive relationship with return on asset of 0.1771 (17.71%), which suggests that an unit change in FSIZE will result in an

Multicollinearity Test

The outcomes of the multicollinearity test, which was performed to assess the relationship between the independent and see if there is a high level of multicollinearity between one explanatory variable and another explanatory variable, are shown in Table 4 below (s)

Table 4 ***Results of VIF Test (Multicollinearity Test)***

Variable	VIF	1/VIF
sce	1.01	0.993890
fsize	1.01	0.994839
cee	1.00	0.999038
Mean VIF	1.00	

Source: STATA 16 output Results

Table 4 displays the VIF and tolerance values for the independent variables; in each case, the VIF is less than 10 and the tolerance level is less than 1, respectively, demonstrating the lack of multicollinearity between the independent variables. The fact that the mean VIF is 1.00 further confirms that multicollinearity is not a concern for the variables.

Heteroskedasticity Test

The results of the heteroskedasticity test, which was carried out to determine yet if the data exhibit unequal variance, are shown in Table 5 below. The variance is homoscedastic, which is the null hypothesis of the test; heteroskedastic is the alternative hypothesis. The criterion is to adopt the alternative hypothesis if the P value is less than 5% and the null hypothesis if the P value is more than 5% (0.05). (0.05).

Table 5 Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

chi2 (1)	= 0.12
Prob>chi2	= 0.7316

Source: STATA 16 Output Results

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For fitted values of ROA, Table 5 displays a Hettest Chi2 of 0.12, which is unremarkable at the 5% level of significance (P-Value = 0.7316). As a consequence, the research accepted the null hypothesis—that the data for the predicted value of ROA are homoscedastic—and rejected the alternative hypothesis.

F Test

The F test result is shown in Table 6 below, and it was used to decide between Pooled OLS regression and fixed effect regression to see which was more appropriate. The fixed effect model is more appropriate, contrary to the null hypothesis of the test, which states that the pooled OLS model is. If the P value is larger than 5% (0.05), the decision rule is to accept the null hypothesis; otherwise, if the P value is less than 5%, accept the alternative hypothesis (0.05).

Table6:ResultsofF test

	$Chibar^2$	Prob.> chi^2
F test	2.63	0.0000

Source: STATA 16 Output Results based on study data

Table 6's results show a F value of 2.63 and a corresponding P value of 0.000, or less than 5%. (0.05). The study concludes that fixed effect regression is the best strategy, rejecting the null hypothesis in the process and accepting the alternative hypothesis.

Breusch and Pagan LagrangianMultiplier Test

The results of the Breusch and Pagan LM test, which was used to decide between pooled OLS regression and random effect regression, are shown in Table 7. In this test, the null hypothesis is that Pooled OLS is the most appropriate method, while the alternative is that Random Effect Regression is the most acceptable method. The criterion states that if the PV is larger above 0.05%, the alternative hypothesis should be accepted; alternatively, if the P value is less than 5%, the null hypothesis should be accepted (0.05).

Table7:Breusch and Pagan Langrangian multiplier test for random effects

		Var	sd = sqrt(Var)
roa	289.0411	17.00121	
	e	202.807	14.24103
	u	25.27667	5.027591

Source: STATA 16 Output Results

Test: Var(u) = 0

chibar2(01) = 52.47

Prob > chibar2 = 0.0000

According to the results in table 7 above, the probability value for the chi2 value of 52.47 is 0.0000. This suggests that the null hypothesis is not true and that the random effect model is the most suitable one.

Autocorrelation Test

The Wooldridge test for autocorrelation in panel data was run to see if there was any serial correlation, and the findings are shown in Table 8 below. The alternative hypothesis in this test is that there is serial correlation, whereas this null hypothesis is that there isn't. The criterion states that if the PV is larger than 0.05%, the alternative hypothesis should be accepted; otherwise, if the P value is less than 5%, the null hypothesis should be accepted (0.05).

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Table 8 Wooldridge test for autocorrelation in panel data

F(1, 75) =	0.938
Prob > F =	0.3360

Source: STATA 16 Output Results

According to the results in table 8 above, the probability value is 0.3360 and the f value is 0.938. This suggests that the null hypothesis is accepted and that there is no first order serial correlation, as the study's findings indicate.

Hausman Taylor Test

The Hausman test was used to compare fixed effect regression to random effect regression in order to decide which was more appropriate. The findings are shown in Table 9 below. The fixed effect model is the most appropriate, contrary to the null hypothesis of the test, which states that the random effect model is most appropriate. The decision rule states that the alternative hypothesis should be accepted if the P value is less than 5% and the null hypothesis should be accepted if it is more than 5% (0.05). (0.05).

Table 9:Results of Hausman test

Coefficients

	(b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
cee	12.18937	15.953	-3.763633	.8768899
sce	-.0273733	-.025954	-.0014193	.0004977
fsize	3.114743	3.992333	-.8775897	3.352781

chi2(3) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 23.95
Prob>chi2 = 0.0000

Source: STATA 16 Output Results

Table 8 above shows the Hausman test result, with a chi2 value of 23.95 and matching probability values of 0.0000, which is less than 5%. (0.05). It follows that the fixed effect regression model is the most suitable one for the investigation.

Test of Hypothesis

The results of the fixed effect regression, which was applied to explain the link and impact of capital employed and structural capital on financial performance, are presented in Table 10 below.

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Table 10 Fixed effect Regression Results

```
Fixed-effects (within) regression   Number of obs      =       750
Group variable: cross               Number of groups   =        75
R-sq:  within  = 0.1352             Obs per group: min =         8
       between = 0.3044                            avg =       9.9
       overall = 0.1743                            max =        10
                                    F(3,677)           =     35.29
corr(u_i, Xb)  = 0.1184             Prob > F           =    0.0000roa
Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
cee     12.18937   2.250189     5.42   0.000     7.771179
16.60755sce  -.0273733    .0031121    -8.80   0.000   -.0334837   -
.0212629fsize    3.114743 3.480953     0.89   0.371   -3.720019
9.949506 _cons    -23.3450   24.78239    -0.94   0.347   -72.00465
25.31453 sigma_u    7.6537285
sigma_e    14.241031
     rho    .22411087 (fraction of variance due to u_i)
F test that all u_i=0:     F(75, 677) =    2.63 Prob > F = 0.0000
```

Source: STATA 16 Output Results

The model is suitable to explain the relationship expressed in the study, according to the F statistics of 35.29 and a matching Prob.>F of 0.0000. The following provides further explanation of the type and degree of the link between the dependent variable and each of the study's independent variables in terms of coefficients, z-values, and p-values:

Ho_1; capital employed efficiency has no significant effect on return on asset of listed non-financial companies in Nigeria

According to the coefficient of 12.1893, the capital employed efficiency (CEE) of the sampled The capital employed efficiency (CEE) of the sampled listed non-financial firms throughout the study period exhibits a favorable association with return on asset, as indicated by the coefficient of 12.1893. This indicates that for every unit increase in capital employed, the return on asset (ROA) improves by 12.1893 units (CE). The results also demonstrated that the capital employed by the sampled firms has a favorable significant impact on Nigeria's listed non-financial enterprises' financial performance. This was shown using a t-value of 5.42 and a matching P-value of 0.000, which is statistically significant at a level of 5%. The study found that CEE had a significant beneficial impact on the return on assets of companies, rejecting the null hypothesis and accepting the alternative one, it was determined that CEE has a considerable positive impact on the return on assets of listed non-financial enterprisesin Nigeria.

Ho_2; Structural capital efficiency has no significant effect on return on asset of listed non-financial companies in Nigeria

According to the coefficient of -0.0273, the structural capital efficiency (SCE) of the sampled listed non-financial enterprises throughout the study period has a negative association with return on asset. This indicates that return on asset (ROA) decreases by 0.0273 units for every unit rise in structural capital efficiency (SCE). The results also demonstrated a significant negative influence of the selected firms' structural capital on the financial performance of Nigeria's listed non-financial industries. This was proved by a t-value of -0.8.80 and a P-value of 0.000, which is statistically significant at a level of 5%. It was concluded that structural capital considerably reduces the return on assets of listed non-financial assets non-financial enterprises in Nigeria after the study accepted the

null hypothesis and rejected the alternative hypothesis.

V. Discussion of Findings

The impact of capital employed and structural capital efficiency on the financial performance of listed non-financial enterprises in Nigeria was investigated in this study. This study specifically aimed to ascertain the impact of structural factors and capital utilized on the financial performance of listed non-financial enterprises in Nigeria. As a result, the study's conclusions are based on models, hypotheses, and analysis that have been developed. The a priori assumptions were that the financial performance should be positively and significantly impacted by both capital employed and structural capital.

According to the study, capital utilized efficiency has a positive and substantial impact on the financial performance of listed non-financial enterprises in Nigeria at the level of significance of 5% (0.05). The results match what was predicted a priori. The foregoing statistics suggest that an increase in capital employed will boost financial performance by 12.1893 units for every unit increase in capital employed.The findings of this study are in line with those of Aluwony (2022), Haruna (2021), and Akhter (2020), who discovered that capital employed efficiency has a positive significant effect on financial performance, and they are in stark contrast to those of Enekwe et al. (2022), Solanke and Muhammed (2021), who discovered that capital employed efficiency also has a negative and insignificant effect on financial performance. Because the analysis tool was different, the results were inconsistent. While the current study employed fixed effect regression as the method for data analysis, Enekwe et al. (2022) analyzed performance using ROA and ROE and used pooled OLS regression.

Second, contrary to a priori expectations, the study also discovered that structural capital efficiency has a negative and significant impact on the financial performance of listed non-financial enterprises in Nigeria. The findings are consistent with those of Solanke and Muhammed (2021), who found that SCE has a significant negative impact on financial performance. It appears from the results that a unit increase in structural capital results in a 0.0273 unit decrease in the financial performance of listed non-financial firms in Nigeria. The findings were utterly at odds with those of Aluwony (2022), Nnubia et al (2019), Ibrahim and Ogwuche (2018), who discovered that SCE has a sizable beneficial impact on financial performance.

VI. CONCLUSION AND RECOMMENDATIONS

Following analysis of the data and discussion, the study reached the following results. The study found that capital employed efficiency (CEE) has a favourable, considerable impact on financial performance. This illustrates how a steady rise in capital employed efficiency results in an improvement in the financial performance of non-financial enterprises in Nigeria. Based on the study's findings, the following suggestions were made:

i. Non-financial firm management should spend more on capital employed because doing so will boost value creation and financial performance.

ii. Listed non-financial companies should put in place policies that will lower the amount invested in structural capital—such as patents, software, trademarks, and copyrights—to an acceptable level because these assets could be used to generate income for the companies, reducing the negative impact of structural capital on financial performance.

References

[1]. Abubakar, H. S., Fodio, M. I., & Ibrahim, H. (2019). Effect of structural capital on performance of consumer goods firms in nigeria. Journal of Taxation and Economic Development, 18 (1), 122-147.

[2]. Ahangar, R. G. (2011). The Relationship between Intellectual Capital and Financial Performance: An Empirical Investigation in an Iranian Company. African Journal of Business Management, 5(1), 88–95.

[3]. Akhter, A. (2020). Intellectual Capital, Firm's Performance and Market Value:An Empirical Study of South Asian Emerging Economies. Islamabad: Capital University of Science and Technology, Islamabad

[4]. Al-Hawajreh, K. M. (2013). The Impact of Structural Capital on Business Performance in Jordanian Pharmaceutical Manufacturing Companies. European Journal of Business and Management, 5(10), 177–190.

[5]. Aluwong, D. B. (2022)Intellectual CapitalPerformance ofNon-Finance Firmsin Nigeria EuropeanJournalofBusinessand InnovationResearch 10, (1), 1-17

[6]. Bhat, H. S., &Zaelit, D. (2014). Forecasting Retained Earnings of Privately Held Companies with PCA and L1 Regression.

Applied Stochastic Models in Business and Industry, 30(3), 271–293.
[7]. Barney, J. (1991) Firm Resources and Sustained Competitive AdvantageJournal of Management Studies 11: 187-198.
[8]. Baron, A. (2011). Measuring human capital. Strategic HR Review, 10 (2), 30–35.
[9]. Bayraktaroglu,A.E.,Calisir,F.,&Baskak,M.(2019).Intellectualcapitalandfirmperformance:AnextendedVAICmodel.Journal ofIntellectual Capital, 20(3),406–425.
[10]. Becker G.S. (1976). The Economic Approach to Human Behaviour. Chicago: University of Chicago Press. P. 57.
[11]. Bontis,N.(1998).Intellectualcapital:Anexploratorystudythatdevelopsmeasuresandmodels.ManagementDecision,36(2),63–76.
[12]. Bontis,N.,Keow,W.C.C.,&Richardson,S.(2000).Intellectualcapitalandbusinessperformance inMalaysianindustries.JournalofIntellectualCapital,1(1),85–100.
[13]. Bontis, N. (2001). Assessing Knowledge Assets: A Review of the Models used to Measure Intellectual Capital, International Journal of Management Review, 3(1), 41-60
[14]. Brenna, N. & Connell, (2000). Intellectual capital, current and policy implications. Journal of Intellectual Capital 1(3) 156-187.
[15]. Brooking, A. (1996). Intellectual Capital: Core Assets for the Third Millennium Enterprise, Thompson Business Press, London.
[16]. Choi, Y. (2014). Making the Poor Pay for the Rich: Capital Account Liberalization and Reserve Accumulation in the Developing World. Globalizations, 11(6), 809–825.
[17]. Cousins, P. D., Handfield, R. B., Lawson, B., & Petersen, K. J. (2006). Creating Supply Chain Relational Capital: The Impact of Formal and Informal Socialization Processes. Journal of Operations Management, 24(6), 851-863.
[18]. Danjuma, K. J., &Ajike, A. M. (2016) Human capital efficiency and corporate performance the Nigerian Perspective. International Journal of Business and Management 4 (3), 1 – 9
[19]. Edom, G. O., Inah, E. U., &Adanma, E. S. (2015). The Impact of Human Resource Accounting On The Profitability Of A Firm: Empirical Evidence From Access Bank Of Nigeria Plc. European Journal of Accounting, Auditing and Finance Research, 3(7), 72-90.
[20]. EnekweC.I.,UdehS.N., &OkwoI.M. (2022) EffectofIntellectualCapitalonFinancial PerformanceoflistedConsumerGoodsCompaniesin Nigeria.EuropeanJournal of Accounting, FinanceandInvestment8 (06), 10 –26
[21]. Firer, S. &William S. (2003). Testing the relationship between intellectual capital and a company's performance. Evidence from South Africa. Meditari Accounting Research 11 25-44
[22]. Gates,S., &Langevin,P. (2010).Humancapitalmeasures,strategy,andperformance:HR managers'perceptions.Accounting,Auditing &AccountabilityJournal, 23(1),111–132.
[23]. Grant, R. (1996) Prospering in dynamically competitive environments, organizational capability as knowledge integration. Organizational science7(4), 375-387.
[24]. Griffiths, W. E., Jensen, P. H. & Webster E. (2015). The Effects of Intellectual Property Rights on Firm Profits. Intellectual Property Research Institute, Working Paper Series. Retrieved from http://www.ipria.com/publications/wp/2005/IPRIAWP05.2005.pdf
[25]. Guthrie, J., Petty, R., Yongvanich, K. and Ricceri, F. (2004), Using content analysis as a research method to inquire into intellectual capital reporting. Journal of Intellectual Capital, 5 (2) 282-293
[26]. Hall, R. (1982) the Importance of Lifetime Jobs in the U.S. Economy. The American Economic Review (September): 716-24.
[27]. Haruna, D. (2021.). Effect of Intellectual Capital on Performance of Multinational. Bingham University Journal of Accounting and Business , 150-160.
[28]. Hih, M., Ireland, R., &Hoskisson R. (1998) Tacit knowledge the life cycle and international manufacturing. Technology analyses and strategic management9 (2), 60-71.
[29]. Ibrahim, A. A., & Ogwuche, I. P. (2018). Effect of Intellectual Capital on Market Performance of Listed Manufacturing Companies in Nigeria. International Journal of Scientific Research in Social Sciences & Management Studies, 3 (2), 107-128.
[30]. Isola, W. A., & Akanni, L. O. (2019). The impact of intellectual capital on the performance of firms in nigeria. Unilag Journal of Business, 5 (1), 98-111.
[31]. Kamukama, N., Ahiauzu, A. &Ntayi, J. M. (2010). Intellectual Capital and Financial

Performance in Uganda's Microfinance Institutions. African Journal of Accounting, Economics, Finance and Banking, 6(6), 17–31.

[32]. Kizito, O. (2017). Effect of Capital Structure on Financial Performance of Firms in the Commercial and Service Sector in the Nairobi Securities Exchange for the period 2012 - 2016.

[33]. Latif,M.,Malik,M.S.,&Aslam,S.(2012).Intellectualcapitalefficiency andcorporate performanceindevelopingcountries:Acomparisonbetween Islamicandconventional banks of Pakistan. Interdisciplinary Journal of Contemporary Research in Business, 4(1), 405-420.

[34]. Lazzolino, G. & Laise, D. (2013), "Value added intellectual coefficient (VAIC): A methodological and critical review", Journal of Intellectual Capital, Vol. 14 (4) 547-563

[35]. Lev, B. & Gu, T. (2016) "The capitalization, amortization, and value-relevance of R&D

[36]. Matanda, J. W., Oyugi&Lisiolo J.L. (2015). Relationship between Board Composition and performance of Commercial Banks in Kenya. Research Journal of Finance and Accounting Vol.6, No.14.

[37]. Micah L., Ofurum C., &Ihendinihu J (2012), "Firms Financial Performance and Human Resource Accounting Disclosure in Nigeria", International Journal of Business and Management, 7 (14), 67-75

[38]. NikMaheran,N.M.,Filzah,M.I.&NikRozhan,N.I.(2009),Intellectualcapitalefficiency level of Malaysianfinancial sector: Panel dataanalysis (2002-2006),

[39]. Nnubia, C. I., Okolo, M. N., & Emeka-Nwokeji, N. A. (2019). Effect of Intellectual Capital on Performance of Non-financial Firms. International Journal of Research and Innovation in Applied Science, IV (IV), 28-38.

[40]. Nonaka, I. And takeuchi, H. (1995) the knowledge creating company: how Japanese companies create the dynamics of innovation. New York: Oxford University Press.

[41]. Onyam, E.G., Usang, I. &Eyisi, A.S. (2015). The Impact of Human Resource Accounting on the Profitability of a Firm: Empirical Evidence from Access Bank of Nigeria Plc, European Journal of Accounting , Auditing and Finance Research, 3(7), 72-90.

[42]. Onyekwelu, L. U., & Ubesie, M. C. (2016). Effect of intellectual capital on corporate valuation of quoted pharmaceutical firms in nigeria. International Journal of Business and Management Review, 4 (7), 50-59.

[43]. Okoye, ,. E., Aroh, N. N., & Egbunike, A. P. (2019). Empirical Examination of Integrated Component of Intellectual Capital on Financial Performance: Study of Select Service and Non-Service Firms in Nigeria. Social and Basic Science Research Review, 3 (9), 299-315.

[44]. Ousama, A. A., Hammami, H., &Abdulkarim, M. (2020). The association between intellectual capital and financial performance in the Islamic banking industry: An analysis of the GCC banks. International Journal of Islamic and Middle Eastern Finance and Management, 13(1), 75-93.

[45]. Pandey, I. M. (2010). Financial Management, VIKAS Publishing House PVT Limited, New Delhi.

[46]. Pena, D.N., Ruiz, V.L. and Navarro J.A. (2012). A case study of control strategy based on intellectual capital management. African Journal of Business Management, 6(16), 5622-5632.

[47]. Penrose, E. (1959) Contributions to the Resource-based View of Strategic Management Journal of Management Studies 41(1) 0022-2380.

[48]. Prawira, B. Y., & Setiawan, R. (2018). Intellectual Capital and Firm Performance: Evidence from Indonesia. 2nd International Conference Postgraduate School 951-956). Indonesia: Scitepress – Science and Technology Publications, Lda.

[49]. Pulic, A. (2000). VAIC - An Accounting tool for IC management, International Journal of Technology Management, 20(58), 702-714.

[50]. Rehman, W., Asghar, N. & Rehman, H. (2013). Intellectual Capital Efficiency and Financial Performance of Insurance Sector in Pakistan: A Panel Data Analysis, Middle-East Journal of Scientific Research, 17(9), 1251-1259.

[51]. Roos, J., Roos, G., Dragonetti, N.C. and Edvinsson, L. (1997), Intellectual Capital: Navigating in theNew Business Landscape, Macmillan, Basingstoke.

[52]. Schultz, T. (1961). Investment in human capital. American Economic Review, 51(1), 1–17.

[53]. Sharabati, A.A. A., Jawad, S. N., Bontis, N., Naji Jawad, S., &Bontis, N. (2010). Intellectual Capital and Business Performance in the Pharmaceutical Sector of Jordan. Management Decision, 48(1), 105–131.

[54]. Sharkie, R.(2003) knowledge creation and its place in the development of sustainable competitive advantage. Journal of knowledge management7(2), 142-154.
[55]. Solanke, A. A., & Mohammed, I. Y. (2021). Effect of intellectual capital on the performance of pharmaceutical firms. Umyu Journal of Accounting and Finance Research, 1 (1), 148-160.
[56]. Suleiman A. A. (2013). human capital efficiency and Financial performance of quoted oil and gas in Nigeria, International Journal for Innovative Research in Multidisciplinary Field, 5(4), 28-35.
[57]. Tangngisalu, J. (2021). The impact of intellectual capital on company value. Jurnal Manajemen Bisnis, 8 (1), 182190.
[58]. Ting, W.K. and Lean H. H. (2009), Intellectual capital performance of financial institutions in Malaysia. Journal of Intellectual Capital, 10 (4), 588- 599.
[59]. Uremadu, S. O., &Efobi, U. R. (2012). The Impact of Capital Structure and Liquidity on Corporate Returns in Nigeria: Evidence from Manufacturing Firms. International Journal of Academic Research in Accounting, Finance and Management Sciences, 2(3), 1–16.
[60]. Utami, M. E. (2018). The Intellectual Capital Components on Firm Value: Evidence from LQ-45 Index Companies. Jurnal Keuangan dan Perbankan, 22 (2), 291-300.
[61]. Van Horne, J.C. (2005). Fundamentals of Financial Management (11th edition), Delhi: Pearson Education, Inc.
[62]. Wernerfelt, B. (1984) the Resource-Based View of the Firm. Strategic Management Journal, 5, 171-180.
[63]. Yousaf, M. (2021). Intellectual capital and firm performance:evidence from certified firms from the EFQM excellence model. Journal of Total Quality Management & Business Excellence , 2-17.
[64]. Yusuf, M. A., Adebayo, P. A., &Yusuf, R. N. (2018) Effect of financial performance on voluntary disclosure of listed financial firms in NigeriaInternational Journal of Economics Commerce and Management 6 (12), 81-99
[65]. Yusuf, A. M, &Abudulkarim, A. S. (2021) Determinants of Financial Distress of Listed Consumers Goods Companies in Nigeria. Fudma Journal of Management Sciences 2 (2), 470-481
[66]. Zadeh, E., Afzali, N., Bagheri, A., Rahimpoor, M., Ezadi, F. &Rahmani, M. (2013).Effect of Intellectual Capital on Firm Performance, International Journal of Academic Research in Accounting, Finance and Management Sciences, 3(2), 98-103.
[67]. Zhang, L., Yu, Q., Jin, Z., & Xu, J. (2021). Do Intellectual Capital Elements Spur Firm Performance? Evidence from the Textile and Apparel Industry in China. Mathematical Problems in Engineering,