Innovations

Intellectual Capital and Performance of Selected Manufacturing Firms in Southeast Nigeria

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Abstract: *The study examined intellectual capital and performance of selected manufacturing firms in southeast Nigeria.This study sought to determine the effect of human capital on return on investment of the selected manufacturing firms in southeast, Nigeria. ascertain the extent at which relational capital influence customer loyalty of the selected manufacturing firms in southeast, Nigeria, examine the relationship between structural capital and zero tolerance of the selected manufacturing firms in southeast, Nigeria. The descriptive survey research design was adopted for the study. The population was 9038, out of which a sample size of 369 was realized using cochran formula at 5% error tolerance and 95% level of confidence. Data were collected through primary and secondary sources. Out of 369 copies of the questionnaire distributed, 320 copies (87%) were returned while 49 copies (13%) were not returned. The hypotheses were tested using simple linear regression and Pearson product moment correlation coefficient. The findings revealed that Human capital significantly affects return on investment of the selected manufacturing firms in southeast, Nigeria($r = 0.898$; $F= 1328.415$; $t = 36.447$; $p< 0.05$). Relational capital significant positive influences on customer loyalty of the selected manufacturing firms in southeast, Nigeria ($r = 0.786$; $F= 645.363$; $t = 25.404$; $p<0.05$). There was a positive relationship between Structural capital on Zero tolerance of the selected manufacturing firms in southeast, Nigeria($r =.923$, $P<.05$).The study concluded that Intellectual Capital (IC) is a company's best asset as a knowledge and expertise that is not only the result of an organization's efforts but also represents its most important asset. The study recommended that Manufacturing firms should invest in their human capital, because , it will optimise the processes, streamline operations and improve productivity that will ultimately lead to increase in return on investment.*

Keywords: Intellectual capital; Human capital; Relational capital; Return on investment and Performance

Introduction

The phrase intellectual capital was first proposed by Galbraith in 1969 and popularized by Stewart in fortune magazine where he tried to introduce it as the amount of Employees knowledge and ability which could strengthen the company's competitive advantage and success. Initially, the difference between book value and market value of companies was considered as intellectual capital (Karmath, 2021).

The transition from an industrial economy, focused on physical assets like factories, machinery, and equipment, to a knowledge-based economy has redefined the sources of wealth and competitive advantage for modern businesses. The emphasis has shifted to intellectual capital, which includes expertise, creativity, skills, and experience (Inyada, 2018; Ekwe, 2012). This shift has profoundly impacted production systems, now driven by technology and knowledge, with intellectual capital becoming a crucial resource for organizational success (Hojatollah & Alireza, 2023). In the knowledge economy, intangible assets are recognized as vital for the survival and performance of organizations, particularly in service industries like finance and pharmaceuticals, where intellectual capital is central to revenue generation (Firer & William, 2023). Despite this shift, traditional accounting practices continue to prioritize physical assets, often neglecting the value of intellectual capital in financial statements. This oversight deprives management of critical information needed for decision-making, particularly concerning human resources, which can ultimately impact financial performance (Amahalu, Ezechukwu & Okudo, 2022; Amahalu, Okudo, Okafor & Onyeka, 2023). The gap between a company's book value and its market value, often attributed to intangible assets, underscores the importance of recognizing and reporting intellectual capital (Umenzekwe, Okoye, Nwoye, Adeniyi & Uchegbu, 2022).

In Nigeria, the manufacturing sector, a key component of the economy, has experienced significant growth, largely due to the contributions of human capital. However, the sector faces challenges such as increasing competition, high operating costs, and an unfriendly business environment, which have stunted its growth (Nnorom, 2017). Competitive pressures have forced organizations to enhance quality and innovate, relying heavily on intellectual capital development. Given the critical role of intellectual capital in driving competitive advantage and financial performance, this study seeks to provide empirical evidence on its impact on manufacturing firms in Nigeria. It aims to bridge the gap in the literature by exploring how intellectual capital influences corporate performance (Amahalu & Okudo, 2023), particularly in a dynamic and challenging business environment like Nigeria's industrial sector.

During the last two decades, the business environment has progressively moved into a knowledge based, fast changing, technology intensive companies in which investments in human resources, information technology, research and development have become essential in order to strengthen the firms competitive position and ensure their future viability (Canibano, 2021). In the twenty-first century firms are competing in a complex and challenging environment and factors like uncertainties and dynamism associated with the development requires knowledge for success (Hih, Keals & Demaris, 2019). Thus, the foundation of organisational competiveness has shifted from an emphasis on physical and tangible resources to knowledge, and managing knowledge-based resources has become the key for sustaining competitive advantage and superior performance (Sharkie, 2019).
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Intellectual Capital refers to the knowledge possessed by individuals inside an organisation that can be utilized to create values. It encompasses the collective knowledge and skills of employees, which contribute to the firm's ability to gain a competitive edge. Intellectual Capital represents the stock of knowledge at a particular time which has been accumulated through knowledge flow activities (Bontis, 2022). The Widespread acceptance of intellectual capital as a source of competitive advantage led to the development of appropriate methods of its measurement, since traditional financial statement are not able to capture all of its aspects (Campisi & Costa, 2020).

Intellectual Capital (IC) is one of important strategic asset in knowledge base economy. There are multiple definitions of IC that have emerged since its inception,encompassing both knowledge-based and economic-based perspectives. The knowledge economy refers to a system in which the production and distribution of goods and services rely heavily on the use of knowledge.This concept, as defined by The Organisation for Economic Co-operation and Development (OECD 2023), highlights the significant role that knowledge plays in driving economic growth and generating prosperity. The human capacity for intellectual thought is a crucial intellectual and strategic resource that enhances the effectiveness of a firm.

In this era, there will be a decrease in the number of individuals engaged in physical labor, while an increase in the number of individuals involved in cognitive tasks is expected.This concept is referred to as intellectual capital. Although it is not shown in the company's balance sheet, intangible assets hold greater value for organisations than physical assets. Economic wealth is driven more by knowledge and information than the production process (Roos, Pike and Fernstrom 2020). Intellectual Capital is also known as the new invisible asset and the most widely used definition of intellectual capital is ''knowledge that is of value to an organisation''. This concept of intellectual capital is also gaining importance in the service industry, amongst which are manufacturing firms, insurance companies and high technology-

based companies. People from different industries, companies and backgrounds agree that the time to focus on intellectual capital and related issues has come (Chen Cheng, & Hwang, 2022). The main goal for any business is simple: Invest capital so that it maximizes shareholder value. However, in modern times, this is a necessary but not sufficient condition because execution of successful strategies depends on access to human and operational know-how, customer and supplier relationships, a committed workforce, and other such intangibles. At the heart of making these intangibles come alive is the firm's investment in intellectual capital.

Yaseen, Dajani and Hasan,. (2023) posit that intellectual capital offers the necessary resources and competencies for enterprises to establish a long-lasting competitive edge. Therefore, it is very important that firms identify the mechanisms that potentialize intellectual capital, beware of which competitive advantages, and thus, discover if all this allows increasing their organisational performance. Pedro, Leitao & Alves. (2022) state that "the importance and positive impact of IC on the performance of organisations is confirmed, as well as the advantages of efficient assessment for their development and growth". In this sense Pitchayadol, Hoonsopon Chandrachai & Triukose, (2022); Dabić, Laznjak & Smallbone, (2022) and Jardon and Martos (2023) argue that IC is more important as a source of competitive advantage in Small and Medium-sized Enterprises (SMEs) because tangible resources are often fewer intellectual capital promotes organisational performance.

Alwanga (2019) defines organisational performance as the ability of an organisation to fulfill its mission through sound management, strong governance and persistent rededication to achieving results. Organisational Performance is the achievement of an organisation's stated goals and how organisations have been able to achieve their targets, efficiency and effectiveness (Gibson et al., 2020). Organisational performance is also viewed in terms of how an enterprise is doing in terms of level of profit, market share and product quality in relation to other enterprises in the same industry. Performance lies at the heart of any managerial process and organisational construct and is therefore considered a critical concept in management. Organisational performance includes multiple activities that help in establishing the goals of the organisation, and monitor the progress towards the target (Johnson & Scholes, 2021).

Statement of the Problem

In recent years, companies especially those in the knowledge intensive industry, have experienced difficulties because of the dynamic and competitive environment. Thus, Intellectual Capital has also been recognized as one of the key determinants in achieving growth today. This applies especially to advanced economies such as Switzerland, United States of America, China and Japan as companies with a large share of unskilled labour have moved to other countries of the world as a consequence of their comparative intellectual capital advantage, Competition at a

cross - border scale compels domestic companies to adjust their competitive position by achieving sustainable financial performance. In the knowledge–intensive industries, Intellectual Capital generally represents the critical resource in the value creation process. Traditional measures of company performance, which are based on conventional accounting principle, are unsuitable to the new economy. Such measures are the main basis for decision making. The conventional performance measurement techniques may lead managers, investors and other stockholders to make inappropriate decision when companies have large portion of their investment in intangible assets.

Nowadays, organisations are struggling to respond to the changes in the business environments, technology development and demand fluctuations. Under such pressure, organisations focuson innovation and the importance of intellectual capital embedded in employees, organisational structure and processes, interactions with customers and suppliers, as innovation and intellectual capital have been considered the key drivers of the economy and competitive advantage.
Organisations that do not recognize the importance of their intellectual assets are likely to be removed from the competitive market, which will ultimately impact their productivity, employee turnover, job satisfaction, profitability, and employee well-being. Therefore, this study seeks to investigate the effect of Intellectual Capital on the Performance of Selected Manufacturing Firms in Southeast, Nigeria.

Objective of the Study
The broad objective of the study is to determine the effect of intellectual capital on the performance of selected manufacturing firms in Southeast, Nigeria. However, the specific objectives are to:
  i.   Determine the effect of human capital on return on investment of the selected manufacturing firms in southeast, Nigeria.
 ii.   Ascertain the extent at which relational capital influence customer loyalty of the selected manufacturing firms in southeast, Nigeria.
iii.   Examine the relationship between structural capital and zero tolerance of the selected manufacturing firms in southeast, Nigeria.

 Research Hypotheses
For the purpose of the study, the following hypotheses were formulated
  i.   Human capital significantly affects return on investment of the selected manufacturing firms in southeast, Nigeria.
 ii.   Relational capital influences customer loyalty of the selected manufacturing firms in southeast, Nigeria.
iii.   There is a relationship between Structural capitalon zero tolerance of the selected manufacturing firms in southeast, Nigeria.

Conceptual Review: Intellectual Capital

Fredriksen (2019), states that intellectual capital can be defined as skills and knowledge acquired by people during their lifetime and which can be used for the production of goods and services. Intellectual Capital (IC) can be briefly defined as the knowledge based equity of organisations and has attracted, during the last decade, a significant amount of practical interest (Campisi and Costa, 2020). Although the importance of Intellectual Capital (IC) is constantly increasing, many organisations face problems with its management, mostly due to measurement difficulties (Andrikopoulos, 2020; Kim et al. 2021,). The widespread acceptance of Intellectual Capital (IC) as a source of competitive advantage led to the development of appropriate methods of its measurement, since traditional financial tools are not able to capture all of its aspects (Campisi and Costa, 2020; Nazari and Herremans, 2021). Ahangar (2019) sees the term intellectual capital to include inventions, ideas, general knowledge, design approaches, computer programs and publications. Ismail and Karem (2019), defines intellectual capital as the combined intangible assets which enable the company to function and see an enterprise as the sum of its tangible assets and intangible assets as expressed in the following formula: Enterprise = Tangible Assets + Intellectual Capital. Saint-Onges, (2021) model developed in the early 2021s divides intellectual capital into three parts: Human capital, Structural capital; and Customer capital.

Human Capital Development

Human capital development is the process of improving an organisation's employee performance, capabilities and resources (Sodirjonov). Human capital development was defined by Gruzina, Firsova and Strielkowski (2021) as a key element in improving a firm assets and employees in order to increase productive as well as sustain competitive advantage. Chowdhury, Uddin, Uddin & Uddin (2022) posited that human capital is a tool for competitive advantage as it involves the process of training, knowledge and skill acquisition, initiatives geared towards betterment and improvement. To sustain competitiveness in the organisation human capital becomes an instrument used to increase productivity. Human capitals refer to processes that relate to training, education and other professional initiatives in order to increase the levels of knowledge, skills, abilities, values, and social assets of an employee which will lead to the employee's satisfaction and performance, and eventually on a firm performance (Shuaibu, 2023).

Relational Capital

Relational capital is the part of intellectual capital that allows creating value as regards the external relations of the company (Edvinsson and Malone, 2022; Scarabino, Biancardi, & Blando, 2021; Walecka, 2022). Sanchez Medina (2021) state that "RC is drawn on the consideration that companies are not isolated systems, but,

on the contrary, are related to the outside.'' On the other hand, Jain, Vyas & Roy. (2023) argue that 'from the perspective of RC, SMEs acquire more knowledge from their customers because of the close proximity and are able to develop their RC with greater ease'. RC consists of alliances and partnerships, brand image, business collaborations, community relations, competitors, consumer trust, corporate reputation, customer loyalty and relationships, customer satisfaction, distribution agreements, distribution channels, joint ventures, knowledge of marketing channels, licensing agreements, networking systems, partnerships, social networks and supplier relations (Bollen, Verdgauwen & Schnieders, 2020).

Structural Capital

Hobley and Kerrin (2022), SC consists of the procedures, processes and systems in which employees actually make use of their available knowledge and skills towards wealth creation. The authors discuss the processes (how a firm converts its input into final product) as a unique resource of the firm which, once acquired, then laterit can be retained and legally protected by the firm. Firms with sound SC will give their employees opportunities to exploit their knowledge and skills to create competitive advantage (Florin *et al.*, 2002). Conversely, a firm with poor SC fails to achieve its performance targets (Widener, 2021). In today's knowledge-based economies, firms are struggling to differentiate on the basis of quality and innovation. Thus it is necessary to invest in SC, which allows HC to fully utilize the skills and creativity, which increases the firm's performance. We define structural capital as the "sum of unique processes which firms acquire through R&D and then protect in the form of patents and copyrights".

Return on Investment

Return on Investment is normally associated with the time that it takes a company to payback an investment. In those cases, the return on investment is associated with a rate of return, or return percentage on usually a financial investment. In this thesis, the return on investment, or ROI, is the amount of money that is gained by the company for investing in break-in training. The ROI is dependent on the number of tasks completed by an employee, since this thesis focuses on the ROI of break-in training in a manufacturing organization .Therefore, in this thesis, ROI refers to a Naira amount.This naira amount is the determined by comparing the profit, or cumulative profit, from the break-in training to the profit, or cumulative profit of the traditional training. The ROI model in this thesis captures the exact amount of money the company will see from the investment in the break-in training according to the number of tasks that have been completed by the employee.

Customer Loyalty

Customers may be an individual or business that purchase the goods or services produced by the company. They are the actual bosses in a deal who are responsible for profit in the business because they create demand for goods and services so that the company produces more goods. The customers are one who is the user of the products or services produced by the company and judge those products' quality with other people. They are the sources of generating profit that always spend a greater share ofwallet. So, every company must produce the quality products or services with affordable price to attract more customers and make more sales. It is costly for business to acquire a new customer than to retain an existing customer. Therefore, the businesses should be aware of their products as well as their customers' type such as loyal customers, discount customers, impulse customers, need-based customers and wandering customers to treat them well (Management Study Guide 2008).

Zero Tolerance

All manufacturing companies encounter the challenge of product variation (Eiflera et al., 2016). As a way of controlling this variance, the tolerance question is addressed. Although, depending on the industry the importance of preciseness may vary. For example, thefittings of a car body may have a narrow tolerance span but the outcome might strictlyaffect the appearance of the final product rather than implicate a function or structuralstrength flaw. Therefore, the question is: What is important to the customer, and whatis important for the product structure, function and performance? Here, tolerances areused to control the manufacturing processes in a way of maintaining the design intent.For most aerospace components the requirements are strict and the tolerance intervals arecommonly minuscule in comparison to the product's size. Therefore, the importance ofa correct tolerance is necessary as the cost of production is in relation to the tolerancewidth.

Theoretical Review
Resource-Based Theory

The resource-based theory (RBT) focuses on the firm's internal influences. It states that organisation performs well and create value, when they implement strategies that respond to market opportunities by exploiting their competitive advantage, internal resources and capabilities (Marr &Roos, 2020; Barney & Clark, 2021). Consequently, organisations need to understand which of the resources they possess represent competitive advantage and how to configure them to deliver value. Also, RBT provides some directives to recognize which resources could represent a sustainable competitive advantage. According to these directives, competitive advantage related resources are valuable, rare, difficult to imitate and hard to substitute (Barney & Clark,2021).

Some intellectual capital elements fit the RBT description of competitive advantage due to their high immateriality which makes them almost integrally non-imitable and non-substitutable (Molloy, Chadwick, Ployhart & Golden, 2019). Also, intellectual capital matches the concept of competitive advantage because its elements merge into the unique value-creation chain by interacting with one another and with other tangible resources in a firm- specific manner (Reed, Lubatkin & Srinivasan., 2021).

However, the resource-based theory of the firm appeared mainly as a reaction to the competitive forces analysis developed by Porter (2021), which assesses a company's position by considering only its external forces. As such, the resource-based theory of the firm fails to recognize external opportunities as potential sources of value (Bontis, 2020). The relational capital component of intellectual capital is dependent to a certain extent on the external influences of a firm's stakeholders. Also, the resource-based theory of the firm does not take into account that internal resources like human capital can change over time due to certain organisational processes (Bontis, 2020).

Consequently, the resource-based theory of the firm cannot fully explain the mechanisms of intellectual capital inside an organisation. The elements of intellectual capital that best fit this theory are the components of structural capital because they are neither external nor subject to change as opposed to the other two components of intellectual capital. Moreover, the resource-based theory of the firm has limitations beyond its ability to conceptualize the notion of intellectual capital. Namely, RBT accentuates the fact that managers need to identify the key organisational resources in order not to seize all valuable opportunities (Brooking, 2021). However, RBT does not explain how we should identify and measure these resources which are based on firm-specific interactions and often are intangible and unobservable such as firm capabilities (Amit & Schoemaker, 2023). Also, RBT does not explain the mechanism through which various degrees of performance outcomes are achieved (Molloy et. al., 2019).

Empirical Review

i. Human Capital & Return on Investment

Odunayo (2022) investigate the effect of human capital development on firm growth in manufacturing companies, Lagos State. The study employed descriptive survey design and the target population of the study was 2,355 employees from the three selected manufacturing companies listed in the Nigeria Stock Exchange. The simple random sampling method was used in selecting the respondents in each of the selected manufacturing company. The sample size was 418. The study used questionnaire to collect the required data. Descriptive statistics was used mainly to summarise the data. Statistical Package for Social Science (SPSS) was used for

analysing data. Data presentation was through the use of tables. Regression analysis was used to establish the relationship between the independent and dependent variables. The study found out that employee work experience had no significant effect on organisational output of selected manufacturing companies in Lagos State, Nigeria (β = 0.045, t = 1.122, p > 0.05. Employee training had a significant effect on market share of selected manufacturing companies in Lagos State, Nigeria (β = 0.101, t = 2.354, p < 0.05). In addition, employee compensation had a significant effect on organisational profit of selected manufacturing companies in Lagos State, Nigeria (β = 0.225, t = 4.515, p < 0.05). The study recommends that managers of selected manufacturing companies should improve the staff competence according to the company's expectation providing training to the employee by emphasizing on the hard skills and soft skills, as well as expertise skill; understand the amount of compensation in accordance with the environment of the manufacturing industry in Nigeria in order to encourage the employees in improving their performance.

Afrah (2023) conducted a study on the impact of human capital development on organisational performance: Case Study Benadir University, Mogadishu, Somalia. The discoveries found that the part of human capital on organisational performance is an essential for advancing the organisations benefit, furthermore, organisations brag for the human capital they have. Over the long haul, HR rehearse assumes a huge part in building the limit of the employees, in this way, this examination gives commitment of the part of human capital development on organisational performance. The examination reasons that the investigation found that there is a positive connection between human capital and Benadir University. The research suggests that using a single organisational format limits its applicability to other organisations.

Ojokuku & Sajuyigbe (2019) did an investigation on the impact of human capital development on the performance of small and medium-sized enterprises (SMEs) in Nigeria. The discoveries demonstrated that human capital development factors have critical impact on SMEs performance. The correlation coefficient (R) = 0.921, indicating a strong relationship. The coefficient of assurance (R2) = 0.849, and the standard blunder gauge of 0.31254, demonstrated that 84.9% of the examined SMEs performance can be related with the advancement of at work training; level of formal instruction, level of cooperation in classes, gatherings and workshops, and level of investment in exchange fairs and displays, as methodologies of human capital development for the SMEs employees. The paper in this manner prescribes that SME administrators ought to effectively advance interest in courses, exchange fairs, workshops and displays with a specific end goal to get present learning that will emphatically affects performance of the SMEs and improve their ability for development and survival.

Ajisafe, Orifa & Balogun(2019) did a study on influence of human capital management on performance with a focus on the banking industry. Two research questions were raised to guide the study. A descriptive research design of correlation type was adopted. Data was collected from 62 senior permanent employees across the 5 banks out of 12 commercial banks available in the target study area to form the sample. Mean statistic and Pearson product moment correlation were used to analyze the data collected from the study. Results from the analysis showed that human capital management has a significant and positive influence on organisational performance. It is recommended among other things that training and development programmes should be prioritized in the banking industries and workers should be made to develop their careers by ensuring their job security and not just being used for the organisational growth; but later abandoned being useless and unproductive.

Relational Capital & Customer Loyalty

Jose Lidia & Arturo (2020) Impact of Relational Capital on Business Value.. Companies that improve their relations with their clients, and the satisfaction of the latter, will therefore achieve a better business performance and will increase their value. Our research thus seeks to analyse whether customer satisfaction is reflected in the total value of the intangibles. A sample of the main Spanish companies, those quoted on the IBEX-35 (the main index of reference of the Spanish Stock Exchange, comprising the 35 companies with greatest liquidity on the Spanish Stock Exchange) are included and the relationship between the relational capital, measured by satisfaction of customers variable, and the total value of the company has been analysed. A positive relationship is then obtained between both variables, that is, improved customer satisfaction is positively associated with an increased business value, but that is not statistically significant.

Szudrowicz (2020) explored the connection between relational capital and company performance by identifying and systemizing management information from publications placed in the Scopus and Web of Science databases. Key research was carried out for the period from 2010 to 2019. This article should be treated as a result of preliminary research of relational capital and company performance based on the desk research. For this initial step the author decided to use a data compilation in order to confirm the significance of the issue. Based on the collected data, the decision was made to develop the topic through a systematic literature review. This second step was to analyse connection between relational capital and company performance based on publications from the period 2010-2019. By focusing on relational capital and company performance in international publications, the results indicated that the number of papers devoted to relational capital has been growing since 2010. This article is an introduction to the topic and an attempt to explain

thepoint of further work on the link between relational capital and company performance.

Mohammad, Sedigheh & Zahra (2023) conducted a study on of relational capital (customer) on the market value and financial performance. The study examines the effect of relational capital (customer) as one of the components of intellectual capital on the market value and financial performance. In this study, the financial data of 96 companies listed in Tehran Stock Exchange during the period 2007 to 2012 were studied. To test the hypotheses, univariate linear regression models were used using panel data and to analyze the data Eviews and SPSS software were used. Hypothesis test results indicate that relational capital has a significant positive effect on financial performance and firm value.

Idowu & Ogundipe (2023) examine the effect of business relational capital components on business' performance of female-owned small scale enterprises in Oyo State of Nigeria. 377 copies of questionnaire were distributed, while 152 belonging to female-owner SSEs were found useful for the analysis. The relationship with suppliers (t=9.673; p< 0.05) customers (t=4.14; p< 05).and internal networks among the employees (t=3.446;<0.5) were found to be positively and significantly related to and predictor of the SSEs business performance. Relational capital as a whole, accounts for 67% of the variation in performance of the firms in the state studied. (R^2 =0.671).

Structural Capital & Zero Tolerance

Abdirahman & Tarique (2020) Impact of Structural Capital and Innovation Capability On Firm Performance, (Case Study of Pharma Industry In Karachi-Pakistan).The primary data were collected from 100 employees from different Pharmaceutical corporations in Karachi using closed ended questionnaire on 5 Likert scale. Secondary data was composed from the published reports, research articles and case studies. For the data analysis objective statistical tools, Descriptive analysis, Correlation and Regression were tested through SPSS. Results indicated that all SC & IC practices were strongly correlated with the Firm performance. This research designated that companies exercise these practices efficiently on a broader level produces top performance. To endure and maintain for the prospect expectations, it is vital that the Pharmaceutical industry be supposed to put these factors (Structural Capital and Innovation Capability) into a practice for the improvement of their performances.

Adebayo, Abu & Ismaila (2019) examined "effect of social capital on the performance of small and medium-sized enterprise (SMEs) in South West region of Nigeria." The specific objectives were to determine the effect of social capital on employment generation of SMEs in South West region of Nigeria. Data were

collected using questionnaires administered to three hundred and ninety three (393) using Taro Yamane statistical formula out of which three hundred and two were returned from the samples. Analysis of data was carried out using multiple regression analysis to determine the nature of relationship amongst variables. The result of ANOVA test shows that the 'F' value is 20.792 with a significance of 'P' value which is 0.000 and less that 0.05, meaning that null hypothesis is rejected and alternative hypothesis is accepted which concluded that there is a significant relationship between Social Capital and employment generation of SMEs in South West region of Nigeria. In Conclusion, building on Social capital by SMEs Operators will improve employment generation of the firm.

Halimatu, Musa & Hassan (2019) this study examined effect of structural capital on the performance of listed consumer goods companies (CGCs) in Nigeria for a period of six (6) years from 2012 to 2017. The dependent variable for this study is performance proxy by value added while the independent variables are structural capital proxy by intellectual property rights. This study carried out descriptive statistics, correlation analysis, panel regression and post diagnostics test to analyze the variables. The regression result revealed that intellectual property rights has positive and significant effect on performance of listed CGCs in Nigeria for the specified period. The study recommends that listed CGCs in Nigeria should increase investment in intangible assets such as computer software, trademarks, and copyrights as this could be used to create revenue for the businesses there by increasing performance. Also, listed CGCs in Nigeria should ensure separation of the representation of book value for IPR from that of other intangible assets like goodwill in their financial statements.

Kamukama et al (2021) explored the extent to which structural capital explained financial performance of sixty-five (65) micro-finance firms in Uganda. Structural capital was represented as company's culture, orientation to quality, innovation, continuous improvement, information systems and teamwork while financial performance was indicated as portfolio at risk (PAR), net profit ratio, loan loss recovery ratio, repayment rate, yield on portfolio and returns on asset (ROA). Five (5) point Likert scale was used to convert responses generated from questionnaire administered to employees of the micro-finance institutions into quantitative data. Normality test and Pearson's bi-variate correlation co-efficient was carried out. Cronbach's alpha test of reliability and validity was carried out to test for the consistency among questions which shows an alpha of 75% signifying reliability of questions in the questionnaire. Hierarchical regression was used to analyze variables because of its capacity to indicate precisely what happens to the model as different predictor variables are introduced. Multicollinearity test which resulted to a mean VIF of less than 10. The study found SC was a strong predictor of financial

performance. The problem with hierarchical regression lies with the choice of what variable to add when including a new model with the aim of improving R2 to determine the fitness of the model. The researcher adds variable to a new model at his/her own discretion and as such causing biasness in the selection of variables. There would be biasness in the responses obtained from the use of employee perception to measure the operational items developed for SC because of the different roles they play as employees in the firms.

Method and Materials
The study adopted research survey design. The populations of the study consist of employeesof small and medium scale enterprises in southeast Nigeria(9038) and this population was drive from twenty two firms (22) whoregistered with manufacturing association of Nigeria (MAN). A sample of 369 was obtained using Cochran (1963) sample determination of sample size.Data was sourced through primary and secondary sources. The instrument was validated through face to face content validity by giving some copies of instrument to management experts who made the necessary corrections for the instrument to measure what it ought to measure, and reliability test was obtained through the use of spearman rank order correlation coefficient and the coefficient value was $r = 0.08$ indicating high internal consistency . Out of 369 copies questionnaire distributed, 320 copies of questionnaire were returned while 49 copies not returned. The tool used for test of hypotheses wassimple linear regression and Pearson product moment correlation coefficient.

Data Presentation and Analyses
Data Presentation
This chapter is primarily concerned with the presentation, analysis and interpretation of results obtained in the field survey. The data is tested in consonance with the research objectives.

Table 4.1 Questionnaire Distribution

	Number of Distributed Questionnaire	%	Number of questionnaires Returned	%	Number of questionnaires not Returned	%
Firms Strength	369	100	320	87	49	13
Total	**369**	**100**	**320**	**87**	**49**	**13**

Source: Fieldwork 2025

Table 4.1 shows that 369 (100%) of the copies of the questionnaire distributed, 320(87%) copies were returned, while 49(13%) were not returned and were not used

Table 4.2: Responses onHuman capital

s/no	Questionnaire items	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
1	A well trained employee contribute positively to the attainment of organisational goal	203 (63.43%)	100 (31.25%)	5 (1.56%)	6 (1.88%)	6 (1.88%)	**320**
2	Mentorship programs promote organizational success	160 (50%)	141 (44.06%)	4 (1.25%)	8 (2.5%)	7 (2.19%)	**320**
3	Organisation that have knowledgeable employee enjoy them as a big assets	159 (49.69%)	144 (45%)	3 (0.94%)	6 (1.88%)	8 (2.5%)	**320**
4	Technical skills ensure employee proficiency on their job	103(32.19%)	201(62.81%)	6(1.88%)	6(1.88%)	4(1.25%)	**320**

Source: Fieldwork, 2025

Item 1 of table 4.2 Indicates that 2030(63.43%) of the respondents strongly agreed with the Statement that awell trained employee contribute positively to the organisational goal. 100(31.25%) agreed, 5(1.56%) were undecided, 6(1.88%) disagree that awell trained employee contribute positively to the organisational goal while 6 (1.88%) of the respondents strongly disagreed with the statement.

Item 2 of the table 4.2 states that Mentorship programs promote organizational success.160 (50%) strongly agreed with the statement, 141(44.06%) agreed,

4(1.25%) were undecided, 8 (2.5%) disagreed that Mentorship programs promote organizational success while 7 (2.19%) strongly disagreed with the statement.

In item 3 of the table 4.2 indicates that 159(49.69%) of the respondents strongly agreed that organisation that have knowledgeable employee enjoy them as a big assets, 144 (45%) agreed, 3(0.94%) were undecided, 6 (1.88%) disagreed while 8 (2.5%) strongly disagreed that organisation that have knowledgeable employee enjoy them as a big assets

In item 4 of the table 4.2 indicates that 103(32.19%) of the respondents strongly agreed that technical skills ensure employee proficiency on their job, while 201 (62.81%) agreed, 6(1.88%) were undecided 6 (1.88%) disagreed while 4 (1.25%) strongly disagreed that technical skills ensure employee proficiency on their job

Table 4.3: Responses on Return on Investment

s/no	Questionnaire items	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
5	Firms success are measure based on their revenue growth	140 (43.75%)	167 (52.19%)	5 (1.56%)	4 (1.25%)	3 (0.94%)	**320**
6	Firms that embark on cost saving boost their revenue	200 (62.5%)	107 (33.44%)	4 (1.25%)	5 (1.56%)	4 (1.25%)	**320**
7	Increase in shareholder value is an indicator of goo return on investment	168 (52.5%)	135 (42.19%)	7 (2.19%)	4 (1.25%)	6 (1.88)%	**320**
8	Defect rate reduction ensure organizational growth	177 (55.31%)	125 (39.06%)	6 (1.88%)	5 (1.56%)	5 (1.56%)	320

Source: Fieldwork 2025

Item 5 of table 4.3 Indicates that 140(43.75%) of the respondents strongly agreed that firms success are measure based on their revenue growth, 167(52.19%) agreed,

5(1.56%) were undecided, 4 (1.25%) disagree while 3(0.94%) strongly disagreed that Firms success are measure based on their revenue growth,

Item 6 of the table 4.3 states that firms that embark on cost saving boost their revenue 200 (62.5%) strongly agreed with the statement, 107(33.44%) agreed, 4(1.25%) were undecided, 5(1.56%) disagreed while 4 (1.25%) strongly disagreed that firms that embark on cost saving boost their revenue

In item 7 of the table 4.3, indicates that 168(52.5%) of the respondents strongly agreed that increase in shareholder value is an indicator of goo return on investment, 135(42.19%) agreed, 7(2.19%) were undecided, 4(1.25%) disagreed while 6(1.88%) strongly disagreed that increase in shareholder value is an indicator of goo return on investment

In item 8 of the table 4.3, indicates that 177 (55.31%) of the respondents strongly agreed that Defect rate reduction ensure organizational growth, 125 (39.06%) agreed, 6(1.88%) were undecided, 5(1.56%) disagreed while 5(1.56%) strongly disagreed that Defect rate reduction ensure organizational growth

Table 4.4: Responses on Relational Capital

s/no	Questionnaire items	Strongly Agree	Agree	undecided	Disagree	Strongly Disagree	Total
9	Customer loyalty ensure customer retention rate	109 (34.06%)	200 (62.5%)	5 (1.56%)	4 (1.25%)	2 (0.63%)	**320**
10	Positive word-of-mouth promote good organizational image	230 (71.88%)	75 (23.44%)	6 (1.88%)	5 (1.56%)	4 (1.25%)	**320**
11	Quality of goods or services provided by suppler strengthen the bold they had with the company	200 (62.5%)	100 (31.25%)	7 (2.19%)	5 (1.56%)	8 (2.5%)	320
12	Strong collaboration and cooperation between partners promotes organizational success	207 (64.69%)	101 (31.56%)	4 (1.25%)	5 (1.56%)	3 (0.94%)	**320**

Source: Fieldwork 2025

Item 9 of table 4.4 Indicates that 109(34.06%) of the respondents strongly agreed that Customer loyalty ensure customer retention rate, 200 (62.5%) agreed, 5(1.56%) were undecided, 4(1.25%) disagree while 2(0.63%) strongly disagreed that Relational capital allows creating value that positively affect customers

Item 10 of the table 4.4 States that Positive word-of-mouth promote good organizational image.230 (71.88%) strongly agreed with the statement, 75(23.44%) agreed, 6(1.88%) were undecided, 5(1.56%) disagreed while 4 (1.25%) strongly disagreed that that Positive word-of-mouth promote good organizational image.

In item 11 of the table 4.4, 200(62.5%) of the respondents strongly agreed that Quality of goods or services provided by suppler strengthen the bold they had with the company, 100(31.25%) agreed, 7(2.19%) were undecided, 5(1.56%) disagreed while 8(2.5%) strongly disagreed that Quality of goods or services provided by suppler strengthen the bold they had with the company

In item 12 of the table 4.4, states that 207(46.69%) of the respondents strongly agreed that strong collaboration and cooperation between partners promotes organizational success, 101 (31.56%) agreed, 4(1.25%) were undecided, 5(1.56%) disagreed, while 3(0.94%) strongly disagreed that strong collaboration and cooperation between partners promotes organizational success

Table 4.5: Responses onCustomer Loyalty

s/no	Questionnaire items	Strongly Agree	Agree	undecided	Disagree	Strongly Disagree	Total
13	Quality product enhance customer loyalty	203 (63.44%)	103 (32.19%)	4 (1.25%)	5 (1.56%)	5 (1.56%)	320
14	Firms use discount to gain customer loyalty	206 (64.38%)	100 (31.25%)	3 (0.94%)	6 (1.88%)	5 (1.56%)	**320**
15	Free gift with purchase attract repurchase	209 (65.31%)	96 (30%)	4 (1.25%)	7 (2.19%)	4 (1.25%)	320
16	Good Price induce customer satisfaction that lead to customer loyalty	103 (32.19%)	201 (62.81%)	6 (1.88%)	4 (1.25%)	6 (1.88%)	320

Source: Fieldwork 2025

Item 13 of table 4.5 Indicates that 203(63.44%) of the respondents strongly agreed that Quality product enhance customer loyalty, 103(32.19%) agreed, 4(1.25%) were undecided, 5 (1.56%) disagree while 5(1.56%) strongly disagreed that Quality product enhance customer loyalty.

Item 14 of the table 4.5 states that Firms use discount to gain customer loyalty. 206 (64.38%) strongly agreed with the statement, 100(31.25%) agreed, 3(0.94%) were undecided, 6(1.88%) disagreed while 5 (1.56%) strongly disagreed that Firms use discount to gain customer loyalty.

In item 15 of the table 4.5, indicates that 209(65.31%) of the respondents strongly agreed that Free gift with purchase attract repurchase, 96(30%) agreed, 4(1.25%) were undecided, 7(2.19%) disagreed, while 4(1.25%) strongly disagreed that Free gift with purchase attract repurchase.

In item 16   of the table 4.5, states that 103(32.19%) of the respondents strongly agreed that Good Price induce customer satisfaction that lead to customer loyalty, 201 (62.81%) agreed, 6(1.88%) were undecided, 4(1.25%) disagreed while 6(1.88%) strongly disagreed that Good Price induce customer satisfaction that lead to customer loyalty.

Table 4.5: Structural capital

s/no	Questionnaire items	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
17	Organizational Structure serve as a guide to the behavior of employee towards organizational goal	201 (62.81%)	105 (32.81%)	6 (1.88%)	6 (1.88%)	2 (0.63%)	**320**
18	formalization is a procedure that direct on how tasks are discharge in an organization	204 (63.75%)	102 (31.88%)	5 (1.56%)	2 (0.63%)	7 (2.17%)	**320**
19	Total quality management ensures that there is an available knowledge and skills that guide firms in wealth creation	110 (34.38%)	200 (62.5%)	3 (0.94%)	4 (1.25%)	3 (0.94%)	**320**
20	ural capital give employee opportunities to exploit their knowledge and skill	65 (20.31%)	241 (75.31%)	4 (1.25%)	4 (1.25%)	6 (1.88)	**320**

to create competitive advantage						

Source: Fieldwork 2025

Item 17 of table 4.5 Indicates that 201(62.81%) of the respondents strongly agreed that Organizational Structure serve as a guide to the behavior of employee towards organizational goal, 105(32.81%) agreed, 6(1.88%) were undecided, 6(1.88%) disagree while 2(0.63%) strongly disagreed that Organizational Structure serve as a guide to the behavior of employee towards organizational goal.

Item 18 of the table 4.5 states that formalization is a procedure that direct on how tasks are discharge in an organization. 204 (63.75%) strongly agreed with the statement, 102(31.88%) agreed, 5(1.56%) were undecided, 2(0.63%) disagreed while 7 (2.17%) strongly disagreed that formalization is a procedure that direct on how tasks are discharge in an organization.

In item 19 of the table 4.5, states that 110(34.38%) of the respondents strongly agreed that Total quality management ensures that there is an available knowledge and skills that guide firms in wealth creation, 200(62.5%) agreed, 3(0.94%) were undecided, 41(1.25%) disagreed while 3(0.94%) strongly disagreed, that Total quality management ensures that there is an available knowledge and skills that guide firms in wealth creation.

In item 20 of the table 4.5, states that 65(20.31%) of the respondents strongly agreed that structural capital give employee opportunities to exploit their knowledge and skill to create competitive advantage, 241 (75.31%) agreed, 4(1.25%) were undecided, 4(1.25%) disagreed while 6(1.88%) strongly disagreed that structural capital give employee opportunities to exploit their knowledge and skill to create competitive advantage.

Table 4.6: Responses onzero tolerance

s/no	Questionnaire items	Strongly Agree	Agree	undecided	Disagree	Strongly Disagree	Total
21	Defect rate is an indicator zero tolerance	201 (62.81%)	102 (32.81%)	6 (1.88%)	5 (1.56%)	6 (1.88%)	**320**
22	Number of customer complaints per unit sold is used to measure zero tolerance	176 (55%)	128 (40%)	5 (1.56%)	4 (1.25%)	5 (1.56%)	**320**

23	Products that pass quality audit score is marketable	211 (59.61%)	130 (36.72%)	5 (1.56%)	4 (1.25%)	4 (1.25%)	**320**
24	Employee complete their required training programs to ensure that defected products are reduce.	220 (62.15%)	122 (34.46%)	3 (0.94%)	6 (1.88%)	3 (0.94%)	**320**

Source: Fieldwork 2025

Item 21 of table 4.6 Indicates that 201(62.81%) of the respondents strongly agreed that Defect rate is an indicator zero tolerance, 102(32.81%) agreed, 6(1.88%) were undecided, 5(1.56%) disagree while 6(1.88%) strongly disagreed that Defect rate is an indicator zero tolerance.

Item 22 of the table 4.6 states that Number of customer complaints per unit sold is used to measure zero tolerance. 176 (55%) strongly agreed with the statement, 128(40%) agreed, 5(1.56%) were undecided, 4(1.25%) disagreed while 5 (1.56%) strongly disagreed that Number of customer complaints per unit sold is used to measure zero tolerance.

In item 23 of the table 4.6, states that 211(59.61%) of the respondents strongly agreed that Products that pass quality audit score is marketable, 130(36.72%) agreed, 5(1.56%) were undecided, 4(1.25%) disagreed while 4(1.25%) strongly disagreed that Products that pass quality audit score is marketable.

In item 24 of the table 4.6, states that 220(62.15%) of the respondents strongly agreed that employee complete their required training programs to ensure that defected products are reduce., 122 (34.46%) agreed, 3(0.94%) were undecided, 6(1.88%) disagreed while 3(0.94%) strongly disagreed that employee complete their required training programs to ensure that defected products are reduce.

Hypothesis One

Ho: Human capital does not significantly affects return on investment   of the selected manufacturing firms in southeast, Nigeria

Hi: Human capital significantly affects return on investment of the selected manufacturing firms in southeast, Nigeria

Table 4.7a Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.898[a]	.807	.806	.32786	.308
a. Predictors: (Constant), Human Capital					
b. Dependent Variable: Return on investment					

Table 4.7b ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	142.790	1	142.790	1328.415	.000[b]
	Residual	34.182	318	.107		
	Total	176.972	319			
a. Dependent Variable: Return on Investment						
b. Predictors: (Constant), Human Capital						

Table 4.7c Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.383	.043		8.947	.000
	Human Capital	.807	.022	.898	36.447	.000
a. Dependent Variable: Return on Investment						

R   = 0.898
R^2 = 0.807
F   = 1328.415
T   = 36.447
DW   = 0. 308

Interpretation

The regression sum of squares (142.790) is greater than the residual sum of squares (34.182), which indicates that more of the variation in the dependent variable is not explained by the model. The significance value of the F statistics (0.000) is less than 0.05, which means that the variation explained by the model is not due to chance.
R, the correlation coefficient which has a value of 0.898, indicates that there is positive relationship between human capital and return on investment. R square, the

coefficient of determination, shows that 80.7% of the return on investment is explained by the model.

With the linear regression model, the error of estimate is low, with a value of about .32786. The Durbin Watson statistics of 0.308, which is not more than 2, indicates there is no autocorrelation.

The human capital coefficient of 0. 898 indicates a positive significance between human capital and return on investment, which is statistically significant (with t = 36.447). Therefore, the null hypothesis should be rejected and the alternative hypothesis accordingly accepted. Thus human capital significantly effects on return on investment of the selected manufacturing firms in southeast, Nigeria

Hypothesis Two

Ho: Relational capital does not influences on customer loyalty of the selected manufacturing firms in southeast, Nigeria

Hi: Relational capital influences on customer loyalty of the selected manufacturing firms in southeast, Nigeria

Table 4.8a Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.786[a]	.618	.617	.43842	.066
a. Predictors: (Constant), Relational capital					
b. Dependent Variable: Customer Loyalty					

Table 4.8b ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	124.049	1	124.049	645.363	.000[b]
	Residual	76.694	318	.192		
	Total	200.743	319			
a. Dependent Variable: Customer Loyalty						
b. Predictors: (Constant), Relational capital						

Table 4.8c Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.492	.049		10.122	.000
	Relational capital	.829	.033	.786	25.404	.000
a. Dependent Variable: Customer Loyalty						

R   = 0.786
R^2 = 0. 618
F   = 645.363
T   = 25.404
DW   = 0. 066

Interpretation
The regression sum of squares (124.049) is greater than the residual sum of squares (67.694), which indicates that more of the variation in the dependent variable is not explained by the model. The significance value of the F statistics (0.000) is less than 0.05, which means that the variation explained by the model is not due to chance.

R, the correlation coefficient which has a value of 0.786, indicates that there is positive relationship between relational capital and customer loyalty. R square, the coefficient of determination, shows that 61.8% of the customer loyalty is explained by the model.

With the linear regression model, the error of estimate is low, with a value of about .43842. The Durbin Watson statistics of 0.066, which is not more than 2, indicates there is no autocorrelation.

Relational capital coefficient of 0. 786 indicates a positive significance between relational capital and customer loyalty, which is statistically significant (with t = 25.404).   Therefore, the null hypothesis should be rejected and the alternative hypothesis accordingly accepted. Thus relational capital significant positive influences on customer loyalty of the selected manufacturing firms in southeast, Nigeria.

Hypothesis Three
Ho: There was no positive relationship between Structural capital and zero tolerance of the selected manufacturing firms in southeast, Nigeria

Hi: There was a positive relationship between Structural capital and zero tolerance of the selected manufacturing firms in southeast, Nigeria

Table 4.9a Descriptive Statistics

	Mean	Std. Deviation	N
Structural capital	1.8594	.97728	320
Zero Tolerance	1.9094	.91036	320

Table 4.16b Correlations

		Structural capital	Zero Tolerance
Structural capital	Pearson Correlation	1	.923**
	Sig. (2-tailed)		.000
	N	320	320
Zero Tolerance	Pearson Correlation	.923**	1
	Sig. (2-tailed)	.000	
	N	320	320
**. Correlation is significant at the 0.01 level (2-tailed).			

Table (4.9a) shows the descriptive statistics of the structural capital and zero tolerance with a mean response of 1.8594 and std. deviation of .97728 for structural capital and a mean response of 1.9094 and std. deviation of .91036 for zero tolerance and number of respondents (320). By careful observation of standard deviation values, there is not much difference in terms of the standard deviation scores. This implies that there is about the same variability of data points between the dependent and independent variables.

Table (4.9b) is the Pearson correlation coefficient for structural capital and zero tolerance. The correlation coefficient shows 0.923. This value indicates that correlation is significant at 0.05 level (2tailed) and implies that there is a significant positive relationship between structural capital and zero tolerance (r = .923). The computed correlations coefficient is greater than the table value of r = .195 with 318 degrees of freedom   (df. = n-2) at alpha level for a two-tailed test (r = .923, p< .05). However, since the computed r = .923, is greater than the table value of .195 we reject the null hypothesis and conclude that there was a positive relationship between Structural capital andzero tolerance of the selected manufacturing firms in southeast, Nigeria (r =.923, P<.05).

Discussion of Results

Hi: Human capital significantly affects return on investment of the selected manufacturing firms in southeast, Nigeria

Hypothesis one was tested withsimple linear regression to determine the effect of human capital on return on investment of the selected manufacturing firms in southeast, Nigeria, However the result showed that Human capital significantly affects return on investment of the selected manufacturing firms in southeast, Nigeria.This work finding was support with the work Odunayo (2022) investigate the effect of human capital development on firm growth in manufacturing companies, Lagos State, The study found out that employee work experience had no significant effect on organisational output of selected manufacturing companies in Lagos State, Nigeria ($\beta = 0.045$, t = 1.122, p > 0.05. Employee training had a significant effect on market share of selected manufacturing companies in Lagos State, Nigeria ($\beta = 0.101$, t = 2.354, p < 0.05). In addition, employee compensation had a significant effect on organisational profit of selected manufacturing companies in Lagos State, Nigeria ($\beta = 0.225$, t = 4.515, p < 0.05). Afrah (2023) conducted a study on the impact of human capital development on organisational performance: Case Study Benadir University, Mogadishu, Somalia. The result revealed that there is a positive connection between human capital and organisational performance of Benadir University. Ojokuku and Sajuyigbe (2019) did an investigation on the impact of human capital development on the performance of small and medium-sized enterprises (SMEs) in Nigeria, The result showed that The correlation coefficient (R) = 0.921, indicating a strong relationship. The coefficient of assurance (R2) = 0.849, and the standard blunder gauge of 0.31254, demonstrated that 84.9% of the examined SMEs performance can be related with the advancement of at work training. Ajisafe, Orifa, Balogun (2019) did a study on influence of human capital management on performance with a focus on the banking industry.Results from the analysis showed that human capital management has a significant and positive influence on organisational performance.

Hi: Relational capital significant positive influences on customer loyalty of the selected manufacturing firms in southeast, Nigeria

Hypothesis two was tested withsimple linear regression toascertain the extent at which relational capital influence customer loyalty of the selected manufacturing firms in southeast, Nigeria, However the result showed thatrelational capital significant positive influences on customer loyalty of the selected manufacturing firms in southeast, Nigeria. This work finding was in agreement with the workJose Lidia and Arturo (2020) Impact of Relational Capital on Business Value, The result showed that the relationship between the relational capital, measured by satisfaction of customers variable, and the total value of the company has been analysed. A positive relationship is then obtained between both variables, that is, improved

customer satisfaction is positively associated with an increased business value, but that is not statistically significant, Mohammad, Sedigheh and Zahra (2023) conducted a study on of relational capital (customer) on the market value and financial performance, results indicate that relational capital has a significant positive effect on financial performance and firm value. Idowu and Ogundipe (2023) examine the effect of business relational capital components on business' performance of female-owned small scale enterprises in Oyo State of Nigeria. The relationship with suppliers (t=9.673; p< 0.05) customers (t=4.14; p< 05).and internal networks among the employees (t=3.446; <0.5) were found to be positively and significantly related to and predictor of the SSEs business performance. Relational capital as a whole, accounts for 67% of the variation in performance of the firms in the state studied. (R^2 =0.671). Kamelia, Nurasyikin and Wan (2021) studied the effect of Relational Capital on the Intellectual Capital and Firm Performance Nexus: Evidence from the Jordanian Industrial Sector.RC is found to have a positive effect on the firm performance. Furthermore, RC, measured through relational capital efficiency (RCE) has a moderating role on the relationship between IC and a firm's performance, which negatively affects the performance of industrial sector in Jordan

Hi: There was a positive relationship between Structural capital andzero tolerance of the selected manufacturing firms in southeast, Nigeria
Hypothesis three was tested withPearson product moment coefficient toexamine the relationship between structural capital andzero toleranceof the selected manufacturing firms in southeast, Nigeria. However the result shows that there was a positive relationship between Structural capitalon zero toleranceof the selected manufacturing firms in southeast, Nigeria.The finding of this work was in agreement with the work Abdirahman & Tarique (2020) Impact of Structural Capital and Innovation Capability On Firm Performance, (Case Study of Pharma Industry In Karachi-Pakistan).The result shows that all SC & IC practices were strongly correlated with the Firm performance. Adebayo, Abu and Ismaila (2019) examined "effect of social capital on the performance of small and medium-sized enterprise (SMEs) in South West region of Nigeria."that there is a significant relationship between Social Capital and employment generation of SMEs in South West region of Nigeria. Halimatu, Musa& Hassan (2019) This study examined effect of structural capital on the performance of listed consumer goods companies (CGCs) in Nigeria for a period of six (6) years from 2012 to 2017.The regression result revealed that intellectual property rights has positive and significant effect on performance of listed CGCs in Nigeria for the specified period. Kamukama et al (2010) explored the extent to which structural capital explained financial performance of sixty-five (65) micro-finance firms in Uganda.The study found SC was a strong predictor of financial performance. Sharabati (2010) examined the association of structural capital with performance of fifteen (15) pharmaceutical companies registered with the Jordanian

Association of Pharmaceutical Manufacturers (JAPM) in 2007.Results revealed that there is a significant relationship between structural capital variables and business performance variables. Also, structural capital has a strong and positive influence on business performance.

Summary of Findings

The findings at the end of this study include the following

     i. Human capital significantly affects return on investment of the selected manufacturing firms in southeast, Nigeria (r = 0.898; F= 1328.415; t = 36.447; p< 0.05).

    ii. Relational capital significant positive influences on customer loyalty of the selected manufacturing firms in southeast, Nigeria (r= 0.786; F= 645.363; t = 25.404; p<0.05).

   iii. There was a positive relationship between Structural capital and Zero tolerance of the selected manufacturing firms in southeast, Nigeria (r =.923, P<.05).

Conclusion

The study concluded that Intellectual Capital (IC) being a company's best asset is the knowledge and expertise that is not only the result of an organization's efforts but also represents its most important asset. This knowledge includes everything from patents, copyrights, and trademarks to know-how and processes that can be transferred to other companies or used internally by the same company to enhance its productivity in different ways. Intellectual capital is that aspect of the firm which derives from employees' creativity and innovative thinking, whether in the form of new products, services, or marketing concepts. This can be contrasted with physical capital (which refers to physical assets such as machines, buildings, and equipment) and financial capital (such as cash and accounts receivable). Intellectual capital is the intangible value of a corporation. Anything non-physical that boosts a company's productivity is included in this. Intellectual capital includes staff. members' expertise, skills, bonuses, salaries, goodwill, patent, organizational processes, and knowledge contained within the organization.

Recommendations

Based on the findings of this study and the conclusions drawn there- from, the following recommendations were made

     i. Manufacturing firms should invest in their human capital, because, it will optimise the processes, streamline operations and improve productivity that will ultimately lead to increase in return on investment.

ii. Manufacturing firms should maintain their relational capital because that will build strong relationships with customers, partners and suppliers establishes trust and credibility leading to increase in loyalty and retention.

iii. Structural capital and zero tolerances are crucial components of an organisational overall success and risk management strategy, however structural capital which is refer as institutional knowledge should be well documented and standardized processes ensure consistency and efficiency, reducing the risk of errors and mistakes.

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