The Nexus between Human Capital Investment and Firm Growth of Selected Non-Financial Firms in Nigeria

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ABSTRACT

The purpose of this study is to examine the nexus between human capital investment and firm growth of selected ICT and services firms in Nigeria. Based on judgemental sampling, secondary data were employed. Panel data regression model was used to examine Return on Assets (ROA), Human Capital Efficiency (HCE), Employee Growth (EG) and Staff Cost (SC)on firm growth. The findings show that there is a negative and significant relationship between human capital efficiency and firm growth. It also, reveals a positive and significant relationship between employee growth and firm growth. There is, however, a negative and insignificant relationship between return on asset, staff cost and firm growth. The findings should be helpful to board members, managers, investors and regulators. The study recommends that selected non-financial firms should invest on human capital efficiency and employee growth through strategic training and retraining to enhance, initiate and sustain firm growth. To ensure adequate return on human capital investment, ICT and services firms should bond their staff to curtail rapid turnover of highly skilled staff.

Keywords: Sales Growth, Human Capital Investment, Return on Assets, Human Capital Efficiency, Employee Growth, & Staff Cost

INTRODUCTION

Recently, there has been rising interest in human capital investment as a universal cure for economic failure. According to Yusuf (2013), One of the most essential components in a firm's long-term success and competitive advantage is the quality of the human resources. With the emergence of the knowledge-based economy, this period has been marked by a high number of business reorganizations in both developed and developing economies of the world. However, at the core of every effective business reorganization is strategic human capital investment. According to Wuttaphan, (2017) future research of human capital investment needs to be further examined in order to understand in depth, the relationship of human capital investment in other aspects such as how human capital investment could enhance human resource development in specific sectors and how human capital investment could play a critical role to promote employee engagement. And also, the research to determine performance and cost along with intangible asset that impact wage and income, productivity and firm growth. Given the economic situation of Nigeria, timely response to this call has become paramount, particularly as we progress further into the knowledge-based economy using Nigerian data. In this regard, studies have shown that the expansion of information and communication technology has radically changed the mode and way of operating and managing business and firms throughout the world, thereby making ICT and services sectors key sectors in the world economy.

However, due to the seemingly skewed notion of investors and board management on the benefits of human capital investment, both the ICT and services sectors in Nigeria have had little impact on the Nigerian's gross domestic product. This has become of one of the major setbacks and a source of concern to key players in the Nigerian economy. Given the fact that ICT and services firms are knowledge intensive and

serves as focal sectors in the Nigeria's modern economy. It is therefore, expedient that further research be conducted to examine the nexus between human capital investment and firm growth of the selected ICT and services firms so as to adequately recommend appropriate investments strategies for investors, growth strategy for board management and the appropriate policies for regulators in the ICT and services sectors in Nigeria.

- **Objectives of the Study**

The main objective of this study is to examine the nexus between human capital investment and firm growth of selected non-financial firms in Nigeria. However, the specific objectives are to:

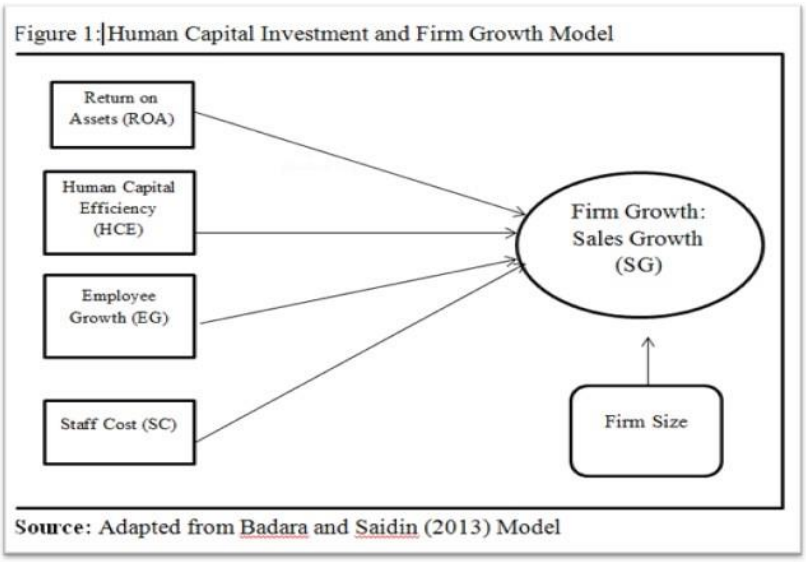
1. Examine the nexus between return on asset and firm growth of selected non-financial firms in Nigeria
2. Find out the relationship between human capital efficiency and firm growth of selected non-financial firms in Nigeria
3. Ascertain the nexus between employee growth and firm growth of selected non-financial firms in Nigeria
4. Show the relationship between staff cost and firm growth of selected non-financial firms in Nigeria.

REVIEW OF LITERATURES

Conceptual Model

Figure 1 represents the model of human capital investment and firm growth, based on Badara and Saidin human capital investment and firm growth model 2013.

Figure 1: Human Capital Investment and Firm Growth Model



Source: Adapted from Badara and Saidin (2013) Model

Firm Growth

Penrose (1995) characterized firm evolution in two ways in her ground-breaking paper. To begin, Penrose defines firm growth as an increment in a defined number, for instance, an increase in sales, output, or exports. Secondly, Penrose described business growth as a specialized development process, comparable to biological processes, resulting in a sizeable or quality rise. The division of growth into quantitative and qualitative elements is similar to Penrose's method. A rise in a measurable metric is referred to as quantitative business growth that represents a firm's size, whereas qualitative firm growth refers to increases in less quantifiable parameters, such as product quality or customer relationship quality (Hutzschenreuter & Hungenberg, 2006). Growth may be measured in terms of revenue generation, wealth creation, and overall business volume expansion. It can also be quantified in terms of qualitative factors like market position,

product quality, and customer satisfaction (Gupta, Guha, & Krishnaswami, 2013). A growth company is one that is growing at a higher rate than its peers or the overall economy. Although there are no hard-and-fast rules for determining growth, these companies have consistently raised annual revenues above the sector average. If a company's revenues or other financial measures increase for one quarter but then decline in consecutive quarters, it is not considered as a growth company. To validate the quality of growth, this development must be proved across several years (Chen, 2018). However, some businesses are still cautious and/or uninterested in investing in human capital, based on the erroneous belief that doing so will eat into their profits. The long-term benefits of investing in human capital, on the other hand, outweigh the short-term costs; these gains include enhanced sustainability and financial worth.

Human Capital Investment

Human resources is a collection of skills, knowledge, and personality traits that are required to create economic value (Bendig, Strese, Flatten, da Costa, & Brettel, 2017). The bulk of human capital investment is based on the educational and or skills training for financial gains (Papaye et al 2016; Bryant et al 2016). Human resources refer to the formal level of training, education, and other professional activities aimed at improving an employee's knowledge, skills, abilities, values, and social assets, which in turn improves employee satisfaction and performance and, ultimately, the firm's performance.

At a glance, much research on human resources and its outcomes for company performance has been conducted, and it is clear that improving human resources results in increased competitive advantage and value addition (Agarwala, 2003). Human capital investment is an aspect of company strategy that equips employees via training, with theoretical and practical abilities, with the potential for better performance as a result (kwon & Rupp, 2013). Its relevance is also visible in the management and direction of all other resources, including developing and updating firm organizational procedures and reinforcing overall organizational success, which gives a company a competitive advantage.

Return on Assets (ROA) and Firm Growth (FG)

For decades, scholars have been fascinated by firm growth and profitability (as measured by return on assets), as well as the link between the two. Growth that is not measured in terms of profitability does not appear to be sustainable in the long – run. Companies that expand at the expense of earnings may be obliged to seek external financing, which can put them in a financial bind. Similarly, investors can utilize profitability to uncover feasible stock possibilities because the percentage indicates companies' efficiency at profit generation with its assets. As a result, a rising return on asset indicates that the company is doing an excellent job of generating earnings with each investment dollar spent. A diminishing return on asset, on the other hand, implies that the company may have overinvested in assets that have failed to generate revenue growth, indicating that the company is in difficulty (Giotopoulos & Fotopoulos, 2010).

However, the relationship between return on assets and firm growth has produced mixed results, but Yolanda and Beatriz (2019) found that during an economic downturn, profits depend on sales growth but past profits are not required to obtain sales growth. The negative economic environment does not always limit corporate growth; it all relies on how the company responds to these challenging circumstances. This is dependent on whether companies decide to implement proper measures to help them handle the challenges of a fluctuating market.

Human Capital Efficiency (HCE) and Firm Growth (FG)

Many studies have been undertaken in industrialized nations to evaluate the link between human capital efficiency (as measured by the VAIC model) and company performance (Ozkan, Cakan, & Kayacan, 2017; Sardo & Serrasqueiro, 2017). Furthermore, many empirical research on Asian economies have been done in

recent years (Mondal & Ghosh, 2012; ; Poh, Kilicman, Ibrahim, & McMillan, 2018; Tran & Vo, 2018). Nigeria has the highest human capital index among middle-income countries. There are, however, differences between ethnic groupings and sectors. As a result, it is seen important to improve the workforce's abilities in order to increase production. Furthermore, according to the 2018 Global Competitiveness Index study, Nigeria's industry-relevant skill set for graduate students is ranked poor. Nigeria's poor rating demonstrates a lack of value added per employee when compared to countries alike (World Bank, 2019a).

Simultaneously, the Nigerian government has issued a set of rules and policies aimed at increasing labor productivity and assisting enterprises in developing human capital. However, our extensive review of the present literature reveals that the importance of human capital efficiency and its impact on business growth, particularly in Nigeria and other emerging economies, has been largely overlooked. Hoang, Thong, and Phuong (2018) performed a study of 319 Vietnamese ICT enterprises to assess the impact of intellectual capital (human capital, social capital, and firm capital) on company performance. Despite its popularity and progress, the VAIC approach became unimportant in investigating the link between efficiency human assets and company success.

Human capital (as measured by learning), according to Santarelli and Tran (2012), has a significant impact on the performance of 1,398 Vietnamese start-up companies. Furthermore, financial enterprises functioning in a highly regulated environment are more likely to comply with regulatory requirements than non-financial enterprises (Ulum, Rizqiyah, & Jati, 2016), resulting in disparities in human capital accumulation.

Employee Growth (EG) and Firm Growth (FG)

Coal and Broekel (2007) used a reduced form of the vector auto regression (VAR) model on longitudinal panel data from French manufacturing firms to provide new insights into the mechanisms of firm growth (1996-2004). Key variables such as employment, sales, and gross operating surplus, as well as multifactor productivity, were observed to co-evolve in the study. Employee expansion is negatively correlated with following productivity growth, according to the findings. However, the latter conclusion is dependent on the type of productivity indicator used, such as multifactor productivity or labor productivity.

With increased globalization and job market saturation as a result of the current crisis in various economies throughout the world, human capital productivity is receiving more attention. According to a previous study, organizations prioritize increased human capital productivity as a means of speeding their growth by allocating the necessary time and effort. Firms, in particular, devote money to improving their human capital, which has a direct impact on corporate growth (Marimuthu, Arokiasamy, & Ismail, 2009). In line with this, Bontis and Ftzenz (2002) and Seleim, Ashour, and Bontis (2007) showed a significant link between human asset productivity and business growth in their investigations. As a result, it's possible that human capital indices improve business performance directly or indirectly. Human capital productivity, meanwhile, impacts on intellectual capital assets directly, resulting in stronger financial outcomes per employee. Employee education, training, and retraining influence human capital productivity, impacting directly on enterprises' return on investment (ROI) (Bontis & Fitzenz, 2002).

Staff Costs (SC) and Firm Growth (FG)

It is critical to understand that firms must have strong and competitive human resources in order to succeed. The quality and value of human resources available determines the success of firms, whether large, medium, or small.

Virtually, in all economic sectors, the difference between successful firms and their competitors is the quality of the people they are able to recruit and retain (Robbins, 2001; Omodero, Alpheaus, & Ihendinihu, 2016).

Previous research has confirmed that funds spent on hiring, training, retraining, and development of employees is widely regarded as one of the most significant investments that businesses can make, and that such efforts have an impact on the firm's growth (Ekwe, 2013). The natural relationship between staff cost and firm growth is that the higher the staff costs, the higher the expected firm growth. However, it is important to consider the impact of mobility of labour after the acquisitions of skills that is capable of increasing firm performance.

Theoretical Framework: The Theory of Human Capital

Human capital theory is concerned with employee knowledge and skills, performance, and economic growth as an investment in human capital (Mestieri, Schauer, & Townsend, 2017). As a result, the theory of human assets has become a well-known educational theory that is used all over the world to comprehend aspects of labour productivity and competence. As a result, training and education should be viewed as an investment that benefits individuals, businesses, and governments in general.

Despite criticism (Tan, 2014), the importance of human capital theory to businesses globally cannot be overemphasized. Its importance in this research assumed that training catalyzes worker performance, which in turn determines the value returns that the organization may receive. As a result, since the 1960s, the theory of human capital has been used in social and human behaviour policies concerning labour management and training (Marginson, 2017).

Because it stresses the productivity and efficiency inherent in workers' competence and skills, this study is based on the theory of human resources (Bryant et al 2016). Because human capital can be viewed as an input, this study examines the effect of human capital investment on company performance in a sample of Nigerian listed ICT enterprises. As a result, this research predicts that human capital will have a positive (+) impact on business growth.

Empirical Review

In the course of this study the following empirical studies were reviewed which gave us better understanding and insight into the need to examine human capital investment and firm growth.

Sung and Choi (2014) assessed the impact of human capital investment on the transformation of a company. The study looked into the effect of investing in human capital on a company's innovation. The study took a time-lag method, and the findings showed that training expenses increase the learning environment, which helps the organization transform. The findings also revealed a strong link between firm internal training and transformation, as well as the fact that training outside the firm has no effect on the firm's innovative performance. Pivac, Barac, and Tadic (2017) looked at how profit margin ratios affect the link between human capital and firm profit. The research, which used a five-year panel methodology and was based on companies quoted in the European Union in the Information Technology sector, found that companies that spend more funds on human capital expenditures made more returns. It was discovered that how organizations prioritize employee skill development is influenced by a number of factors together with the company's size.

Shaw, Park, and Kim (2013) found a link between HC losses (as assessed by rates of turnover) and financial performance in organizations (sales per employee). When HR investments are large, HC losses have a reduced negative impact on organizational performance, according to their findings. Low-investment HC losses, on the other hand, have no discernible relationship with organizational success. Bapna et al(2013) looked at the link between human capital investments in the form of employee training and employee performance in an organization. While the study found that workers' skills have improved, it found also that not all employee training adds value to their performance. Above all, the data showed

that investing in human capital through training increases employee performance and leads to economic growth.

Seleim et al. (2007) investigated the relationship between human capital and organizational performance of software companies in Egypt. The study used correlation and stepwise regression analysis to estimate data. The findings showed that human capital indicators show a positive and statistically significant relationship with firm performance. These indicators are training attended and Team-work practices attended which result in superstar performers, where more productivity could be translated to organizational performances. They recommend that this study be replicated in different Egyptian industries, such as communications and education as well as capital-intensive industries that have a long history in Egypt and in other industries of the world. Such attempts would allow for more widespread generalizations to be made. This study may also be extended to different software development markets that are burgeoning but considered not fully developed in other countries of world.

Masuluke and Ngwakwe (2018) investigated whether "human capital investment (HCI) has an impact on the earnings performance of selected FTSE/JSE Responsible Investment Index Series companies." Secondary data on profit, human capital investment (HCI) (primary independent variable), and sales turnover (STO) (control variable) were gathered from 28 firms' integrated reports from 2010 to 2015." The conclusions of the investigation showed two major conclusions using a panel data technique and regression statistics. To begin, the influence of two independent variables (HCI and STO) revealed a 1 per cent significant connection. Second, the HCI had a negative and insignificant connection with net profit when used alone. According to them, this association is just transient; HCI has the potential to positively effect business growth in the long run, hence organizations should not evaluate HCI profit success just on a short-term basis. They recommended that future research should use longer period of data and wider coverage of companies to include more companies outside of the companies in the FTSE/JSE Responsible Investment Index Series.

2.5 Research Gap

Based on the literature reviewed, human capital investment in relation to firm growth has been a topic of interest for investors, board management, policymakers and scholars. For instance, Worlu and Onyinyechi (2016) concluded that banks have not invested adequately in human capital and this has affected their financial performance. Seliem, et al (2007) recommended replicated study in different countries across various sectors such as communications and education as well as capital-intensive sectors particularly those burgeoning but considered not fully developed. They opined that such research would allow for more widespread generalizations to be made. Masuluke and Ngwakwe (2018) also, recommended that future research should be conducted on human capital investment using a longer period of data and wider coverage of firms in order to achieve a more elaborate results.

Though, many aspects of human capital investment have been researched from varying perspectives over the last 50 years across the globe but there seems to be little of such studies in the Nigerian economy. More also, the scant studies on the Nigerian scene majored on the banking sector of the economy (Bessong et al. 2012, Onyam, et al 2015, Agbiogwu, Ihendinihu and Azubike, 2016, Worlu and Onyinyechi 2016, Ekpete et al. 2020). However, certain studies in the previous few decades have suggested that a firm's growth process may differ from country to country and sector to sector (kwon & Rupp, 2013). In this regard, further research into the nexus between human capital investment and firm growth of listed ICT and services firms in Nigeria has become paramount.

Hypotheses Development and Statement

HO_1: Return on investment has no significant relationship with firm growth of selected non-financial firms in Nigeria.

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HO_2: Human capital efficiency has no significant nexus with firm growth of selected non-financial firms in Nigeria.

HO_3: Employee growth has no significant relationship with firm growth of selected non-financial firms in Nigeria.

HO_4: Staff costs have no significant relationship with firm growth of selected non-financial firms in Nigeria.

RESEARCH DESIGN AND METHODOLOGY

For the purpose of this study, an ex-post facto research design was employed due to the fact that the data to be used for the purpose of analysis are already in existence (Adefila, 2008). Data were extracted from the annual reports and financial statements of the selected non-financial firms on the Nigeria Stock Exchange as at 31 December, 2018 for the period of ten (10) years spanning from 2009 to 2018 of the selected listed firms in Nigeria.

Research model

The relationship between Human Capital Investment as proxied by Return on Assets (ROA), Human Capital Efficiency (HCE), Employee Growth (EG) and Staff Cost (SC) and Firm Growth as proxied by sales growth (SG) was examined using the following regression model:

SG = f (sales growth)

$SG = \beta_0 + \beta_1 ROA_{it} + \beta_2 HCE_{it} + \beta_3 EG_{it} + \beta_4 SC_{it} + \beta_5 FS_{it} + Er_{it}$

(Kwarbai and Ajike 2016)

Where: SG = Sales growth; ROA = Return on assets; HCE = Human capital efficiency; EG = Employee growth; SC = Staff Costs; and FS = Firm Size. Also, β_0, and β_1 to β_6 are the coefficient of the variables.

Variables definition

Dependent variable

Frim Growth (FG) – Most of the researchers have used sales growth as a measure of firm growth (Ting, Kweh, & Chan, 2014). Sales growth is measured as: SG = (Sales t – Sales t-1)/ Sales t-1

(Kwarbai and Ajike 2016)

Independent variables

i. Return on Assets (ROA)- It is measured as pre-interest and tax earnings to total assets. ROA as a profitability indicator has effect on the expansion of the companies, payment of more dividends, as a direct consequence of the investment in human capital (Al-Shubiri, 2011).

ii. Human Capital Efficiency is measured as follows:

Human Capital Efficiency (HCE) = Value Added (VA) / Human Capital (HC) Where:

HC = personnel expenses (salaries and benefits)

VA= Total Revenue – (Operating Expenses- Salaries). Therefore, HCE = Total Revenue – (Operating Expenses- Salaries) / Personnel expenses (salaries and benefits)

(Kwarbai & Ajike, 2016)

iii. Employee Growth

Employees' Growth (EG) this is determined as the amount of increase in the new number of employee after growth less the original number before the growth divided by the original number of employees. It is measured as:

Employee Growth = (Employee t – Employee t-1) / Employee t -1

(Kwarbai & Ajike, 2016)

iv. Staff Costs (SC)

Staff costs (SC) may be defined as the total employment cost. It is measured as:

SC = Training cost + Salaries & Wages + Benefits + Commissions + Pension deposits (Sung & Choi, 2014).

Control Variable

Firm Size (FS) – The size of firm, which is believed to have a significant impact on the Human Capital Investment as well as growth of the firm. In line with this the natural logarithm of total assets was adopted as the control variable for firm size (Kwarbai & Ajike, 2016).

DATA ANALYSIS

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SG	180	.03	147.60	19.3286	22.80270
ROA	180	.01	90.90	9.8549	12.22838
HCE	180	.08	59.89	5.2074	8.25555
EG	180	1.14	6.20	3.2387	.86531
SC	180	4.21	8.85	5.8131	.91907
FS	180	5.50	9.82	7.0136	.81367
Valid N (listwise)	180				

Source: SPSS Version 20 Output Result (2020)

From table 4.1, the respective minimum and maximum values for the variables are 0.03 and 147.60 for SG, 0.01 and 90.90 for ROA, 0.08 and 59.89 for HCE, 1.14 and 6.20 for EG, and 4.21 and 8.85 for SC. The values are clustered around the mean.

Table 4.2 reports the results from the regressions exploring the relationship between human capital investment and firm growth.

Table 4.2: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.386[a]	.149	.125	21.33095	1.306
a. Predictors: (Constant), LNFS, HCE, ROA, LNEG, LNSC					
b. Dependent Variable: SG					

Source: SPSS VERSION 20 (2020)

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From table 4.2, the R which represents the regression coefficient shows a strong explanation of 0.386, while the more crucial variable R squared shows an output of 0.149, approximately 15% which signifies that changes associated with the response variable, is captured by the changes in the explanatory variable. In other words, 15% R squared indicates that the nexus between human capital investment and firm growth of listed non-financial firms in Nigeria are accounted for by the explanatory variable captured in the study. This implies that firm growth is accounted for by 15% of human capital investment.

Table 4.3: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13901.726	5	2780.345	6.111	.000[b]
	Residual	79171.635	174	455.009		
	Total	93073.361	179			

a. Dependent Variable: SG

b. Predictors: (Constant), LNFS, HCE, ROA, LNEG, LNSC

Source: SPSS VERSION 20 (2020)

Consequently, table 4.3 indicates the Analysis of Variance (ANOVA) showing a significant relationship at the 1% level of significance with F statistics of 6.111 showing the fitness of the model.

Table 4.4: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	49.162	16.123		3.049	.003		
	ROA	-.098	.155	-.052	-.629	.530	.705	1.418
	HCE	-.355	.194	-.129	-1.835	.068	.994	1.006
	EG	11.560	2.556	.439	4.522	.000	.519	1.925
	SC	-.463	4.220	-.019	-.110	.913	.169	5.918
	FS	-8.806	5.275	-.314	-1.669	.097	.138	7.247

a. Dependent Variable: SG

Source: SPSS Version 20 Output Result (2020)

RESULT AND DISCUSSION OF FINDINGS

From the table 4.4, the Panel regression equation can be written as SG = 49.162 – 0.098ROA – 0.355HCE + 11.560EG – 0.463SC – 8.806FS.

The constant 49.162 implied that where all variables are 0, the average sales growth (sg) score would be 49.162. This is where the regression lines intersect the y-axis.

Return on assets (ROA) has a negative coefficient of 0.098 with a statistical insignificant p-value of 0.530, which means that 0.098 is not statistically different from 0; base on this, ROA has no effect on SG controlling by other variables.

Also, human capital efficiency (HCE) has a negative coefficient of 0.355, which by implication connotes that if HCE decreases by 0.355, sales growth (SG) will decrease by 0.355with a statistically significant p-value of 0.068 (meaning that 0.355 is statistically different from 0. However, HCE is very important to the SG due to its level of significance, which is at 10% as controlled by other variables.

Similarly, employee growth (EG) has a positive coefficient of 11.560, which could mean that if EG increases by 1%, SG will increase by 11.560 with a statistically significant p-value of 0.000. By implication, 11.560 is statistically different from 0.

In like manner, staff cost (SC) has a negative coefficient of 0.463, which may imply that where SC increases by 1% then the sales growth (sg) will also decrease by 0.463 with a statistically insignificant p-value of 0.913. Therefore, 0.463 is not statistically different from 0.

The return on assets (ROA) of the selected listed firms is a very essential metric for a firm since it has a positive association with firm growth and indicates to the investors how the firms are actually acting in terms of turning assets into net capital, as shown in Table 4.8. As a result, the greater the statistic (expressed in percentage), the better it is for the management of the business. The null hypothesis, which indicated that the return on asset had no nexus with firm growth of the selected firms, is confirmed in this regard by the insignificant negative association between the ROA and firm growth. As a result, there is sufficient evidence to accept the null hypothesis; this stance is consistent with Masuluke and Ngwakwe's findings (2018). Although, according to them, this association is only transient, HCI has the potential to have a favourable impact on company growth in the long run. As a result, increased ROA encourages management to invest in human capital by implementing continuous employee training programs, robust employee welfare packages, and other bonuses, all of which lead to increased human capital efficiency; as a result, companies should not judge HCI profit performance solely on a short-term basis.

Table 4.8 shows that every company, whether they realize it or not, invests in human capital efficiency. Salary, benefits, and perks for employees are all investments in the firm's human capital. However, investing this money but refusing to invest a bit more on staff development is akin to paying a lot of money for a Super Bowl commercial spot but then refusing to spend money on a good commercial. For the company, that would be a terrible investment. To get the most out of its human capital investment, a company must spend money on increasing employee productivity. Offering opportunities for growth and learning to company personnel will ultimately benefit the firm's bottom line. This could be the implication of the table 4.8 results, which revealed that human capital efficiency and employee growth are both prerequisites for firm success, as seen by the considerable correlations between the two. These findings support the alternate hypothesis, which states that human capital efficiency has substantial relationship on firm growth and that employee growth has a strong association with firm growth of selected non-financial firms in Nigeria. This position is consistent with the findings of Bollen, Vergau wen, and Schienders (2005); Coleman (2007); Phusavat, Comepa, Sitko-Lutek, and Ooi (2011); Vomberg, Homburg, and Bornemann (2015); Backman, Melander, and Gabe (2016); as their studies provided sufficient evidence to prove that there is a significant relationship between human capital efficiency and firm growth. This stance, however, contradicts Shaw, Park, and Kim's (2013) results of inconsequential findings.

Finally, table 4.8 revealed that staff costs had a negligible relationship with firm growth, confirming the null hypothesis that there is no nexus between staff costs and firm growth.

Though, the natural relationship between staff cost and firm growth is that the higher the staff cost the higher the expected firm growth. However, from the result of this study there is an inverse relationship between staff cost and firm growth. This negative insignificant relationship between staff costs and sales growth could be as a result of high turnover rate of highly skilled staff of non-financial firms in Nigeria, as individuals with higher levels of education and skills particularly in developing economies often seek employment in the developed economy for better pay jobs. This finding is in line with to the findings of Chawla, et al (2010), according to them staff cost does not always have a positive effect on firm performance. Nevertheless, this finding contradicts the findings of Izedonme, Odeyile, and Kuegbe (2013); Ekwe (2014); and Ghasempour and Yusof (2014), who all stated that money spent on hiring, training, retraining, and development of employees is generally viewed as one of the most important investments that a company can make, and that such investments have an impact on the firm's growth. The distinction

between successful organizations and their contemporaries in practically all economic sectors, according to Robbins (2001); Omodere, Alpheaus, and Ihendinihu (2016), is the quality of the people they are able to attract and keep.

Overall, human relations theory believes that higher employee happiness is linked to stronger morale, which leads to higher growth, and that positive emotions, in particular, contribute to increased motivation, which leads to better job outcomes and organizational success. In this regard, firms improve their services to clients as their staff base grows, which usually increases the outcome in the form of physical and intangible services, hence increasing the firm's income. Economic growth and competitiveness are dependent on firm growth.

However, a country's ability to enhance its quality of living is nearly entirely dependent on its capacity to increase production per worker, or the amount of goods and services produced for a given number of hours worked. Employees with a high level of human capital (as assessed by education, experience, and cognitive occupations) are favourable to company growth because they are connected with a variety of traits that are advantageous to the company. This is especially true in labour-intensive industries like business services, where individual qualities are likely to be more essential because they are the organizations' major value-creating assets. These findings support steps that make it easier to recruit talented workers.

SUMMARY AND CONCLUSION

Following the findings from the analysis, the study draws the following conclusion that Return on investment and staff cost has no significant relationship with sales growth, while, human capital efficiency and employee growth has significant nexus with sales growth of listed non-financial firms in Nigeria. The study recommends that ICT and services firms should work on improving human capital efficiency and employee growth through strategic training and retraining to enhance, initiate and sustain firm growth. Also, human capital efficiency appraisal with recognition and reward should be introduced to motivate staff into a continuous high-level performance.

To ensure adequate return on human capital investment, ICT and services firms should bond their staff to curtail rapid turnover of highly skilled staff.

Managers of ICT and services firms should be strategic and long term minded in their human capital investment since it has the ability to erode profit in a short run but ultimately impact on firm growth positively on a long run. Regulator should make policies that will encourage firms to maintain and increase their human capital investment, rather than reducing the number of employees, so that the growth structure is based on human capital investment rather than reduction in the number of employees. Finally, the ratio of staff to firm size should be improved upon to ensure achieving effective organizational size.

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