CAPITALIZATION OF HUMAN CAPITAL ACQUISITION & DEVELOPMENT COST AND RETURN ON EQUITY Of LISTED MANUFACTURING COMPANIES IN NIGERIA.

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Abstract

The modern day accounting practice raised an issue in the area of not recognizing human capital as an asset and because the human capital is not recognized as an asset, it is omitted in the statement of financial position as an intangible asset. This study examined the effect of capitalizing human capital acquisition & development cost on Return on Equity. Using ex-post facto research design, eight listed manufacturing firms were purposively selected from the listed manufacturing firms across four sectors which engage in consumer goods, industrial, basic materials and oil and gas. The study adopted a panel regression method in analyzing the data collected from the annual reports of the firm from 2013- 2020. Finding from the study revealed that human capital acquisition & development cost have a significant effect on Return on Equity of listed Manufacturing Companies in Nigeria. Based on the finding, the study recommends that Regulators should set up a strong accounting policy geared towards ensuring that human capital acquisition & development cost are treated as capital expenditure. This practice will enhance the performance of firms (ROE).

Keywords: Human Capital, Human Capital Development, Manufacturing firm, Return On Equity, Staff Cost,

1.0   Introduction

Resources are key drivers for every business success, the need for these adequate resources (in the form of financial, physical and intangible assets) in ensuring the continuous operation of a business as a going concern can never be looked down on. These resources range from physical assets, financial and other intangible assets, all needed for the growth of a company. Before the millennium, there was a growing prediction that less people will do physical work and more people will do brain work, this is "intellectual capital", and it doesn't appear on the company statement of financial performance, but reflects more value for organizations than that of physical assets.

A capital is a Wealth in the form of money or assets that shows the financial strength of an individual, organization, or nation, and assumed to be available for development or investment. It is money invested in a business to generate income. In economics, it is the factors of

production that are used to create goods or services and are not themselves in the process (BusinessDictionary.com). The modern day business has changed what constitutes a capital of an organization. There is no doubt that companies need strong and competitive human resource to succeed; the success of firms whether large, medium or small, depends on the quality and value of human resource they have. According to Robbins (2001), a major feature that differentiates successful organizations from their contemporaries in almost all economic sectors is the quality of the people they are able to get and retain. Knowledge has, indeed, become power and organizations in our ever changing world consider knowledge and intellect of their employees as a competitive edge to compete effectively in the market place (Kharal, Zai-ur-Rehman, Abrar & Khan 2014). Therefore, money spent on employee's training and development is generally viewed as one of the critical investments that companies could make, and that such investments should be treated as a capital expenditure.

A key contributory factor to organizational performance is the human resource of an organization (Nmesirionye, Okezie, Enobong & Udoayang, 2021). It relates to the totality of an organization's resources not expressly reflected in financial statements but creates value, defines it's competencies and distinguishes the organization to have competitive advantage (Jones, Onuche & Nmesirionye, 2019).

Despite the advent of information technology which has made the whole world to become a global village, human intellect is still the brain behind business success. There is no technological or service base evolution, however sound it may be, that has not and will not be driven by human intellect which is the ability, knowledge and skill of such an individual. For companies to seek new ways of developing and maintaining competitive advantage in the present dynamic environment, it is important that firms truly leverage on their workforce as a competitive weapon. To leverage on the workforce means an improvement largely on the procurement of the right people with high level of intellectual competence, hence the need for expenditure on human capital. Basically, the concept of human capital cost arose from the transformation of individual competence into highly productive human capital with the effective input of education, health and moral value. It is one of the biggest asset of an organization (Nmesirionye, Egwu, Okoro & Obizuo, 2021).

This present century is knowledge driven, it is therefore necessary for organizations to utilize its human capital in such a way that will not make it's success to be at stake. This can be achieved by ensuring that the human capital that will drive the economy be recognized as a

valuable part of the total value of an organization in order to assess the effect it has on the overall performance of an organization. Against this back-drop, this study seeks to evaluate the effect of capitalizing human capital acquisition & development cost on return on equity of listed manufacturing companies in Nigeria.

1.1   Statement of Problem

The modern day accounting practice raised an issue in the area of not recognizing human capital as an asset and because the human capital is not recognized as an asset, it is omitted in the statement of financial position as an intangible asset. This dilemma restricted many organizations from investing in the human resource on the ground that any expense in this direction will reduce the organization's profit; instead, huge resources are spent on non-human asset to the detriment of the human resource that coordinates the other factors in an organization.

Capitalizing human capital; that is, recognizing human capital as an intangible asset will change the perception of owners of business entities towards their human resource. This will create more avenues for investment in this area since; the employer knows from the onset that he is going to recoup the fund invested. More investment on human resource in terms of training and retraining will have a corresponding positive effect on technical-know-how of the human resource but the problem remains, "to what extent does the capitalization of human resource cost (acquisition and development cost) affect Return on Equity?" This study seeks to proffer solution to this problem at the end.

1.2   Objective of the study

The objective of this study is to examine the effect of capitalizing human capital acquisition & development cost on Return on Equity of listed Manufacturing Companies in Nigeria.

1.3   Research Question

To what extent does capitalizing human capital acquisition & development cost affect Return on Equity of listed Manufacturing Companies in Nigeria?

1.4   Research Hypothesis

H_0: Human capital acquisition & development cost have no significant effect on Return on Equity of listed Manufacturing Companies in Nigeria.

2.0   Review of Related Literature

2.1   Conceptual Framework

2.1.1   Human capital

According to Nmesirionye, *et al* (2021). Human capital refers to a set of individuals who make up the workforce of an organization or a business entity. It relates to the totality of an organization's resources not expressly reflected in financial statements but creates value, defines its competencies and distinguishes that organization to have competitive advantage (Jones et al., 2019). The development of human capital involves training and retraining of human resource and usually cost driven.

Training is a learning process that aims to permanently improve the ability and behavior of the employees by enabling them to acquire new skill, knowledge and attitude for more efficient performance. Which includes: identification of training needs; developing suitable training programmes; providing requisite job skills and knowledge to employees; evaluating the effectiveness of training programmes? Training is considered fundamentally important to human capital development. It could be described as the vehicle that takes organization to their destination within a stipulated time frame. Development is the growth or realization of a person's ability, through conscious or unconscious learning. Development programs usually include phases of planned study and experience, and are usually supported by a coaching or counseling facility. Development occurs when a gain in experience is effectively combined with the conceptual understanding that can illustrate it, giving increased confidence both to act and to perceive how such action relates to its context (Bolton, 2017).

According to Becker (2018), there are three types of training or knowledge, which are directly related to rate of return and human capital. Becker specified these trainings or knowledge as investments in human capital. These three types of training or knowledge according to him are: on-the-job training - learning new skills and perfecting old ones while on the job. Broken down into two types of training; general training- those skills which are useful in many firms besides those providing it; specific training - training that has no effect on the productivity of trainees that would be useful in other firms; schooling - an institution specializing in the production of training, as distinct from a firm that offers training in conjunction with the production of goods; and knowledge - any other information which a person obtains to increase their command of their economic situation. On-the-job training is intended to improve old skills and provide new

skills while employed by a firm. These skills are either transferable or specific. On-the-job training is provided by a firm and utilized to increase the outputs of the firm and to increase the income of the individual. This type of training is valued through the time and effort of the trainees, the teaching provided by others, and the equipment and materials used. These are costs that are incurred from reducing current production in order to increase future production (Armstrong, 2017). On-the-training time periods can vary greatly as more time is spent on an intern than a machine operator (Becker, 2018). General training provides transferable skills to the worker. These types of skills are rarely costly to the firm - most of the trainees bare the cost of general training and reap the benefits of the returns. Employees pay for the general on-the-job training by receiving wages below what they could receive elsewhere. For example, a machinist trained in the military receives lower wages than we would in the competitive labour market; however he finds his skill has value in steel or aircraft firms, and a doctor in residency at one hospital finds his skills are highly transferable to other hospitals or private practice in the future. Most general on-the-job training presumably increases the future marginal productivity of the workers in the firm providing the training and in other firms (Barney, 2018). Specific training refers to training provided by a firm that has limited transferability and only increases productivity within the contextual setting. For example, when a firm hires new employees - most times, they are orientated to the culture, specific policies and procedures, and other processes to familiarize the new employees with their organization. This type of training is specific because the knowledge acquired raises productivity in the firm providing the knowledge than in other firms. Some specific training may not be useful in a single firm or in most firms, but in a set of firms defined by a product, type of work, or geographical location (Coleman, 2017). School training (schooling) is completed off the job and at an institution that specializes in either one skill or multiple skills. Schools are often substitutions for on-the job training at a firm. This is evidence by the shift in training programs from the firm to the school such as legal apprenticeships to law school, and on-the-job engineering experience to engineering schools (Becker, 2018). Most training programs develop on-the-job than transfer to formal institutions because industry usually sees the value of the training much before schools. Most schooling costs are absorbed by the student in order to reap the benefits of the returns later from higher wages from specialized skill sets. Training of employees results in increased productivity in any organization. The technological growth of any nation depends on the bulk of trained human resources available. Kennedy, as reported by Gary (2017), once said that manpower is the basic resource, the indispensable means of correcting other resources to mankind's use and benefit. How well we train, develop, and employ the human skill is

fundamental in deciding how we will accomplish as organizations. The manner in which we do this will profoundly depend on the kind of nation we have.

According to Armstrong (2017), workers have the ability to acquire —other knowledge from many sources. Other knowledge has the same ability to increase worker wages as on-the-job training, specific and general training, as well as schooling. Information about the prices charged by different sellers would enable a person to buy from the cheapest, thereby raising his command over resources; information about the wages offered by different firms would enable him to work for the firm paying the highest wage. Becker (2018) claimed that one of the most influential theoretical concepts in human capital analysis is the distinction between general and specific training or knowledge. The distinction helps explain why workers with highly specific skills are less likely to quit their jobs and are the last to be laid off during business downturns. It also explains why most promotions are made from within a firm rather than through hiring (Barney, 2018). Becker has established the rationale for firms to provide highly specific training to their workers. This type of training reaps benefits for the firm through higher productivity and for the worker through higher wages.

The distribution of responsibilities is suggested to lead to specialization. However, to be able to utilize their specialization in the best possible way, the work-tasks should be rotated among the employees so as to broaden their field of specialization as well as their knowledge about the organization's operation as a whole. Therefore, once a year the work-tasks should be rotated among the various employees depending upon their qualifications and suitability to perform the new work-task.6

The tools and methods for human capital development differ in organizations, and it is largely determined by the objectives of organizations, the idiosyncrasy of management staff, the organizational policy, as well as the organizational environment.

2.1.2 Staff Costs

These are expenses incurred in the course of acquiring, training and retraining of the human elements in an organization; that generate economic output. It involves employee salary and other benefits. Employee benefits are part of an employee's total reward package provided along with his/her usual cash payments (Armstrong, 2016). It can be inform of medical insurance, and pension scheme, car allowance and season ticket loan; or benefits which are not strictly classified as remuneration: holiday trips. Benefits provided by employers are tax

deductible, sometime regarded as benefits in kind, with the notable exception of some benefits including pension schemes, canteen meals, car parking, professional subscriptions and other benefits that are used mainly for job duties. Employee benefit play a significant role in employer-employee relationship and this has proven to be advantageous to both parties. Employees see their benefits to be as important as their basic salary. This is because most employee benefits enable employees to make savings, or provide amenities that otherwise would have been difficult to get. The benefits offer by employers to employees have been on the increasing rate, notwithstanding, the major problem is that most employers want to cut down costs and in most cases, do not understand what their employees want and so provide the wrong employee benefits.

2.1.3 Return on Equity (ROE)

Return on equity (ROE) is a measure of financial performance calculated by dividing net income after tax by shareholder's equity. Because shareholder's equity is equal to a company's assets minus its debt, ROE could be thought of as the return on net assets (Newbold, Zumwalt & Kannan, 2017). ROE is considered a measure of how effectively management is using a company's assets to create profits. Return on Equity (ROE) ratio measures firm's profitability by revealing how much profit a company generates with the money shareholders have invested.

2.1.4 Measurement and Capitalization of Human Capital

Establishing the different dimensions of human resource costs, investments and the worth of employees (the value of human resource) and capitalizing is the major issue in Human Resource Accounting. Many methods and models for making this determination have evolved in literature. The first is the Discounted Wages Method (Lev & Schwartz, 1971), the Historical Acquisition Cost Method (Flamboltz, 1972), the Replacement Cost Method; regarded as the Adjusted (Present) Value Method (Hermansson, 1964), and the Goodwill Method (Pyle, 1970). These methods of capitalizing human resource costs fall into two main measurement approaches – The cost approach which involves methods based on the costs incurred by the organization on employees, and the economic value approach which includes methods based on the economic value of the human resources and their contributions to the company's overall profit.

2.2   Theoretical Framework

This work is anchored on Human capital theory.

Human capital theory was developed by Schultz 1961.The origin of human capital goes back to emergence of classical economics in 1776 and thereafter it was developed as scientific theory. The idea of investing in human capital was first propounded by Adam (1963), who argued in the Wealth of Nations that differences between the ways of working of individuals with different levels of education and training reflected differences in the returns necessary to defray the costs of acquiring those skills. Economists such as Elliot (1991) developed the theory of human capital. He is concerned with human capital in terms of the quality, not quantity, of the labour supply.

The theory has it that a person's formal education determines his or her earning power. Human capital theory holds that it is the key competences, skills, knowledge and abilities of the workforce that contributes to organisation's competitive advantage. It focuses attention on resourcing, human resource development, and reward strategies and practices. According to Human Capital Theory, education is an investment because it is believed that it could potentially bestow private and social benefits. Human capital theorists believe that education and earning power are correlated, which means, theoretically, that the more education one has, the more one can earn, and that the skills, knowledge and abilities that education provides can be transferred into the work in terms of productivity, (Dae-bong, 2009).

Human capital theory recognized that not all employees possess the knowledge and skills that are of equal importance. It should be remembered that no two individuals are exactly alike. This theory drew attention on the resource based view of the firm, human capital theory, and transaction cause economics to develop human resource architecture of four different employment modes: internal development, acquisition of knowledge and skill, contracting of one another, alliance between workers. This theory implies that growth in human capital has a lot of implications on economic growth as such any country that neglects human capital development, directly or indirectly neglects its economic growth indices. Human capital theory further postulates that education and earning power have direct relationship; which implies that an increase in education will result to an increase in earning. Similarly, the theory emphasized that the skill, knowledge and abilities provided by education can be transferred into work in terms of enhanced productivity. The link between this theory and the present study is that the present study tries to find out how capitalizing human capital cost affects return on equity; The theory directs the a priori expectation of the present study.

2.3   Empirical Review

Allam (2018) examined intellectual capital and firm performance; differentiating between accounting based and market based performance and studied 198 firms for two gulf cooperation council countries; Kingdom of Saudi Arabia and Kingdom of Bahrain for the period 2014 - 2016. The value added intellectual coefficient model was adopted along with two performance measures: accounting based represented by return on assets and market based performance proxied by Tobin's Q. The paper adopted panel regression method of data estimation and found that there is positive relationship between intellectual capital and return on asset while there is negative association between intellectual capital and Tobin Q.

Onyekwelu, Okoh and Iyidiobi (2017) studied effect of intellectual capital on financial performance of banks in Nigeria and adopted ex post facto research design. It used value added intellectual coefficient to determine the effect of intellectual capital indices on financial performance. Secondary data were collected from 3 banks annual reports using regression analysis to estimate the data. They established that human capital efficiency has a positive and significant effect on banks financial performance but capital employed efficiency and structural capital efficiency are not significant and further indicated that the banks with high intellectual capital also showed high financial performance. The study recommended that banks should improve on their human capital as findings showed that it has impact on their financial performance.

Ali (2015) investigated effect of intellectual capital components on financial performance of deposit money banks in Nigeria from 2006 to 2013. Secondary data was employed engaging purposively sampling eight banks from the total population of banks listed on the Nigeria Stock Exchange. The paper used human capital efficiency, structural capital efficiency and capital employed efficiency as the intellectual components and adopted correlation and multi-linear regression techniques to analyze the data collected. The study revealed the intellectual capital components have positive and significant effect on the financial performance of deposit money banks in Nigeria. The study therefore recommended that money deposit banks should enhance capacity through staff training and development and setting of clear performance standards.

Adebawojo, Enyi and Adebawo (2015) investigated the likely effect of human asset accounting on the performance of business organizations in Nigeria. The empirical study adopted an Ex-post facto research design, conducted on all 18 publicly quoted banks in Nigeria capital market. The instrument of data collection was questionnaire designed on a six steps Likert Scale and validated through peer review with Cronbach Alpha Coefficient of 0.807 and 0.870 for Human

Asset and Organisation Performance respectively. The hypothesis was tested using simple regression model. The result of the analyses confirmed that human asset accounting significantly affects the banks' performance at F-ratio = 56.280, P≤ 0.05, R2 =0.193. It concluded that capitalizing human assets would positively impact on performance of organizations and recommended its disclosure as intangible asset in the balance sheet.

3.0   Methodology

3.1   Research Design

This study adopted ex-post facto research design. The choice for this design is because the study attempted to explore cause and effect relationship between human capital acquisition & development cost and Return on Equity using existing micro-economic data.

3.2   Method of Data Collection

The study extracted secondary data from annual financial report of eight listed manufacturing companies in Nigeria from 2013 - 2020. The period of 2013 - 2020 was selected because some of the firms were listed nine (9) years ago and their published financial statements that can be obtained is for a period of eight (8) years.

The sampling technique adopted is judgmental. The listed manufacturing firms were grouped into 4 sectors by the Nigerian Stock Exchange vis-a-vis consumer goods, industrial, basic material and oil and gas. Based on the grouping, two (2) firms from each sector were selected on the basis of those that report their human capital acquisition and development cost in their financial statement. See appendix.

3.3   Explanation of Variables

The dependent variable Return On Equity (ROE) was obtain after the human capital acquisition & development cost have been yearly capitalized and amortized at 15years using a straight-line method. It was based on the IAS 38 on intangibles. See appendix.

3.4   Method of Data Estimation

The study employed balanced panel data based simple regression model in view of the longitudinal data structure. Fixed effect, random effect and diagnostic houseman test was conducted. Housman test helps in selection of the regression between fixed and random effect taking into consideration the chi-square probability value. The fixed effect therefore is

favoured if houseman test result is significant at 5% otherwise, the random effect is preferred. The OLS which is the best linear unbiased estimator was used to test the hypothesis.

3.5   Specification of Model

The model specification is as follows;

ROE = (HCA & DC)

Where;

ROE = Return On Equity

HCA & DC = Human Capital Acquisition & Development Cost

The above model is presented in econometric form

$ROE = \beta_0 + \beta_1 HCA \& DC_{it} + e_{it}$

Where;

β_0 =   constant intercept term

β_1 =   slope coefficient

i =   cross section of companies

t =   time period of data

4.0   Result and Discussion

4.1   Stationarity/ Unit Root Tests

Table 1. Augmented Dickey Fuller (ADF) Test

Variables	ADF Stat	P-value	Level form
ACQ. & DEV. Cost	30.4625	0.0157	1st difference
ROE	24.9571	0.0406	1st difference

Source: E-view Computation

To avoid running a spurious regression, a unit root test was carried out to ensure that the variables employed in this study are mean reverting i.e stationary. For this purpose the Augmented Dickey Fuller (ADF) test was utilized and the result of the test as presented in table 1 shows that acquisition & development cost and Return on Equity are stationary at first difference. This is because ADF t-statistic in absolute term has P-value less than 0.05 level of significance. This result therefore confirms the stationarity of variables used in the analysis.

Table 2: Cointegration Test result for the hypothesis

Pedroni Residual Cointegration Test			
Series: ROE ACQ____DEV__COST			
Date: 11/18/21 Time: 19:09			
Sample: 2013 2020			

Included observations: 64			
Cross-sections included: 8			
Null Hypothesis: No cointegration			
Trend assumption: Deterministic intercept and trend			
User-specified lag length: 1			
Newey-West automatic bandwidth selection and Bartlett kernel			
Alternative hypothesis: common AR coefs. (within-dimension)			

	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	5.672677	0.0000	1.991055	0.0232
Panel rho-Statistic	-0.372740	0.3547	0.969658	0.8339
Panel PP-Statistic	-8.331693	0.0000	-5.120370	0.0000
Panel ADF-Statistic	-0.174024	0.4309	-2.262844	0.0118

Since the probability value of ADF-statistics of 0.4309 is greater than 0.05, it implies that there is no long run relationship between acquisition & development cost and return on equity.

Table 3: Hausman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.215730	1	0.6423
Cross-section random effects test comparisons:			

Variable	Fixed	Random	Var(Diff.)	Prob.
ACQ____DEV__COST	0.109581	0.070715	0.007002	0.6423

Table 3 shows the Hausman test result conducted to choose between fixed effects model and random effects model in panel data. Based on the result, random effect panel data is preferable. This is so because the null hypothesis was accepted based on the decision rule given that P-value of 0.6463 is greater than 0.05

Table 4 Panel Data Regression Analysis (Random Effect Test)

Dependent Variable: ROE		

Method: Panel EGLS (Cross-section random effects)				
Date: 11/18/21 Time: 19:12				
Sample: 2013 2020				
Periods included: 8				
Cross-sections included: 8				
Total panel (balanced) observations: 64				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.366657	0.080650	-4.546278	0.0000
ACQ____DEV__COST	0.070715	0.011468	6.166300	0.0000
	Effects Specification			
			S.D.	Rho
Cross-section random			0.013318	0.0249
Idiosyncratic random			0.083420	0.9751
	Weighted Statistics			
R-squared	0.383148	Mean dependent var		0.114493
Adjusted R-squared	0.373199	S.D. dependent var		0.104698
S.E. of regression	0.082890	Sum squared resid		0.425991
F-statistic	38.51039	Durbin-Watson stat		0.532850
Prob(F-statistic)	0.000000			
	Unweighted Statistics			
R-squared	0.421405	Mean dependent var		0.125625
Sum squared resid	0.434510	Durbin-Watson stat		0.522402

SOURCE: E-VIEW COMPUTATION

The panel data result shows the effect of human capital acquisition & development cost on return on equity of listed manufacturing companies in Nigeria.

The coefficient of determination R-square of 0.383 implied that 38.3% of the sample variation in the dependent variable return on equity (ROE) is explained or caused by the explanatory variable (human capital acquisition and development cost) while 61.7% is unexplained. This remaining 61.7% could be caused by other factors or variables not built into the model. Consequently, the value of the adjusted R^2 is 0.373. This shows that the regression line which captures 37.3 per cent of the total variation in ROE is caused by variation in the explanatory variable specified in the model with 62.7 per cent accounted for the stochastic error term. The F-statistic was also used to test the overall significant of the model. The F-value of 38.51039

with P-value of 0.0000 is an indication that the model is statistically significant at 5 percent level of significant. Finally, the test of autocorrelation using Durbin-watson shows that the Durbin-watson value of 0.532850 falls outside the conclusive region of Durbin-watson partition curve. Hence, we can clearly say that there is no sign of autocorrelation.

4.2   Test of Hypothesis

H_0**:** Human capital acquisition & development cost have no significant effect on return on equity of listed manufacturing companies in Nigeria.

H_A**:** Human capital acquisition & development cost have significant effect on return on equity of listed manufacturing companies in Nigeria.

The F-statistic with 38.51039 has probability of 0.0000 level of significance. Since the probability of the F statistics is less than 5% level of significance, we reject the null hypothesis, and therefore conclude that human capital acquisition & development cost have a significant effect on return on equity of listed manufacturing companies in Nigeria.

4.3   Discussions of Finding

Finding from this study showed that human capital acquisition & development cost have a significant effect on return on equity of listed manufacturing companies in Nigeria. This is evident from the result of the analysis where F-ratio = 38.51039 with P-value of 0.0000 which is less than 5 percent. However, this finding is in line with that of Adebawojo, *et-al* which revealed that capitalizing human assets would positively impact on the performance of organizations.

5.0   Conclusion and Recommendation

5.1   Conclusion

The study evaluated the effect of capitalizing human capital acquisition & development cost on return on equity. Indeed, the practice of treating human capital acquisition & development cost as an expense and charged against the current periods should be discouraged. The money spent on acquiring and developing employees should be considered as one of the critical investments any firm could make and as such, should be treated as a capital expenditure. This study was carried out using eight selected manufacturing firms listed in Nigerian Stock Exchange. Human capital acquisition & development cost was capitalized and used as proxy for independent variables while Return on Equity was used as proxy for dependent variable. The finding revealed that human capital acquisition & development cost when capitalized has a significant effect on Return on Equity. The study therefore concludes that capitalizing human capital acquisition & development cost has significant effect on Return on Equity of Manufacturing firms in Nigeria.

5.2   Recommendation

In consonance with this study's findings, it became imperative to recommend that Regulators should set up a strong Accounting policy geared towards ensuring that human capital acquisition & development cost are treated as capital expenditure. This practice will enhance the performance of firms vis avis. Return on Equity.

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Appendix **(Authors Compilation)**

Yr	Firms	*A A&D Cost (Yearly)	**B Amortization (Per period) B=A/15	*C Equity(BC)	D Equity(AC) D=C+I	*E PAT(BC)	**F PAT(AC) F=E+A-H	**G Equity Ratio (AC) G=F/D	**H Accum. Amortization H=SUM OF B	I Additional profit/loss I=A-H	LOG = A&D COST
2013	BOC GAS	12852000	856800	886215537	898210737	158664840	170660040	0.19	856800	11995200	7.10897071
2014	BOC GAS	15145000	1009667	941634173	954912706	149056627	162335160	0.17	1866467	13278533	7.18026927
2015	BOC GAS	15361000	1024067	924078534	936549000	118646394	131116860	0.14	2890534	12470466	7.18641948

Year	Company									
2016	BOC GAS	20993000	1399533	1004986885	1021689818	95862947	112385880	0.11	4290067	16702933	7.32207450
2017	BOC GAS	2710000	144667	1007647734	1005923000	62080114	60355380	0.06	4434734	(1724734)	6.43296929
2018	BOC GAS	9541000	636067	932079101	936549000	32992061	37461960	0.04	5071101	4469899	6.97959389
2019	BOC GAS	7643000	509533	1038547634	1040610000	29155934	31218300	0.03	5580634	2062366	6.88326385
2020	BOC GAS	8219000	547933	899771567	901862000	24965427	27055860	0.03	6128567	2090433	6.91481898
2013	LAFERAGE	9865000	657667	5993992667	6003200000	119142667	1200640000	0.20	657667	9207333	6.99409708
2014	LAFERAGE	9042000	602800	7950202911	7951984444	1423575667	1431357200	0.18	7260467	1781533	6.95626450
2015	LAFERAGE	7218000	481200	74494231	79970564	1521182387	1519440720	0.19	1741667	5476333	6.85841687
2016	LAFERAGE	6634000	442267	12192559934	12197010000	1953705534	1951521600	0.16	2183934	4450066	6.82177546
2017	LAFERAGE	6045000	403000	12557188791	12560646857	1755032494	1758490560	0.14	2586934	3458066	6.78139630
2018	LAFERAGE	5321000	354733	23652429758	23654809091	2599649667	2602029000	0.11	2941667	2379333	6.72599325
2019	LAFERAGE	5002000	333467	52796055467	52797782333	4750073544	4751800410	0.09	3275134	1726866	6.69914368
2020	LAFERAGE	5142000	342800	54362294184	54363818250	4347581394	4349105460	0.08	3617934	1524066	6.71113207
2013	BERGER PAINT	12531000	835400	1176582800	1188278400	166546160	178241760	0.15	835400	11695600	7.09798572
2014	BERGER PAINT	16482000	1098800	1144748200	1159296000	112974760	127522560	0.11	1934200	14547800	7.21700990
2015	BERGER PAINT	11517000	767800	1251919400	1260734400	117258440	126073440	0.10	2702000	8815000	7.06133936
2016	BERGER PAINT	9365000	624333	1225713333	1231752000	67866453	73905120	0.06	3326333	6038667	6.97150778
2017	BERGER PAINT	1025000	601667	1273669769	1270766769	160122680	165199680	0.13	3928000	(2903000)	6.01072386
2018	BERGER PAINT	8145000	543000	1316635333	1320309333	115153840	118827840	0.09	4471000	3674000	6.91089108
2019	BERGER PAINT	7482000	498800	1366101133	1368613333	120663000	123175200	0.09	4969800	2512200	6.87401770
2020	BERGER PAINT	6532000	435467	143785267	144912000	14813587	15940320	0.11	5405267	1126733	6.81504617
2013	NIG. BREW.	9371452000	91430133	15347251518	24627273385	17846964273	19209273240	0.78	91430133	9280021867	9.97180688
2014	NIG. BREW	1944958000	129663867	44666869073	46390733073	17296336560	19020200560	0.41	221094000	1723864000	9.28891022
2015	NIG. BREW	2109478000	140631867	57727247867	59475000000	20852747867	22600500000	0.38	361725867	1747752133	9.32417500
2016	NIG. BREW	2235681000	149045400	87408290267	89133200000	20558390267	22283300000	0.25	510771267	1724909733	9.34940983
2017	NIG. BREW	2086547000	139103133	86155872855	87592545455	17833687400	19270360000	0.22	649874400	1436672600	9.31942817
2018	NIG. BREW	1978372000	131891467	82996570338	84193176471	13116233867	14312840000	0.17	781765867	1196606133	9.29630795
2019	NIG. BREW	2233463000	148897533	85811516189	87114315789	15248920400	16551720000	0.19	930663400	1302799600	9.34897876
2020	NIG. BREW	1573073000	104871533	80421961933	80959500000	9177601933	9715140000	0.12	1035534933	537538067	0.97076417
2013	DANGOTE FLOUR	10256000	683733	15684872177	15694444444	2815427733	2825000000	0.18	683733	9572267	7.01097801
2014	DANGOTE FLOUR	10045000	669667	14366308400	14375000000	2291308400	2300000000	0.16	1353400	8691600	7.00194994
2015	DANGOTE FLOUR	7965000	531000	20448464855	20454545455	2243919400	2250000000	0.11	1884400	6080600	6.90118578
2016	DANGOTE FLOUR	8654000	576933	22493807333	22500000000	2018807333	2025000000	0.09	2461333	6192667	6.93721689
2017	DANGOTE FLOUR	11025000	735000	18563599904	18571428571	2592171333	2600000000	0.14	3196333	7828667	7.04237859
2018	DANGOTE FLOUR	9786000	652400	23744062733	23750000000	1894062733	1900000000	0.08	3848733	5937267	6.99060521
2019	DANGOTE FLOUR	7324000	488267	18925584429	18928571429	1322013000	1325000000	0.07	4337000	2987000	6.86474833

2020	DANGOTE FLOUR	6589000	439267	27082020600	27083333333	1623687267	1625000000	0.06	5276267	1312733	6.81881950
2013	DANGOTE CEMENT	1106500	73767	65161113	66193846	7572467	8605200	0.13	73767	1032733	6.04395141
2014	DANGOTE CEMENT	1028900	65893	73237460	74124000	6528860	7412400	0.10	142360	886540	6.01237316
2015	DANGOTE CEMENT	1000800	66720	76834947	77626667	6194680	6986400	0.09	209080	791720	6.00034729
2016	DANGOTE CEMENT	794500	52966	63840879	64373333	5261146	5793600	0.09	262046	532454	5.90009390
2017	DANGOTE CEMENT	873200	58213	85864202	86417143	5496259	6049200	0.07	320259	552941	5.94111372
2018	DANGOTE CEMENT	705600	47040	87701699	88040000	4944099	5282400	0.06	367299	338301	5.84855857
2019	DANGOTE CEMENT	634800	42320	70369105	70594286	4716419	4941600	0.07	409619	225181	5.80263691
2020	DANGOTE CEMENT	586500	39100	90174219	90312000	4377819	4515600	0.05	448719	137781	5.76826801
2013	FORTE OIL	843000	56200	2920789867	2921576667	349802400	350589200	0.12	56200	786800	5.92582757
2014	FORTE OIL	932000	62133	2857836733	2858650400	285051373	285865040	0.10	118333	813667	5.96941591
2015	FORTE OIL	932000	62133	3720887666	3721639200	371412389	372163920	0.10	180466	751534	5.96941591
2016	FORTE OIL	721000	48067	4314451533	4314944000	387852493	388344960	0.09	228533	492467	5.85793526
2017	FORTE OIL	701000	46733	4545675980	4546101714	317801386	318227120	0.07	275266	425734	5.84571801
2018	FORTE OIL	632000	42133	4530376599	4530691200	226219959	226534560	0.05	317399	314601	5.80071707
2019	FORTE OIL	624000	41600	3343816599	3344081600	166939079	167204080	0.05	358999	265001	5.79518458
2020	FORTE OIL	598000	39864	3128135266	3128334400	156815568	156416720	0.05	398866	199134	5.77670118
2013	CAPITAL OIL	923000	61533	22843689993	22844551460	1141366106	1142227573	0.10	61533	861467	5.96520170
2014	CAPITAL OIL	910000	60667	10249372470	10250160270	1024288227	1025016027	0.10	122200	787800	5.95904139
2015	CAPITAL OIL	792000	52800	10738274711	10738891711	965883254	966500254	0.09	175000	617000	5.89872518
2016	CAPITAL OIL	702000	46800	9335033613	9335513813	746360905	746841105	0.08	221800	480200	5.84633711
2017	CAPITAL OIL	674000	44933	5539464950	5539872217	331985066	332392333	0.06	266733	407267	5.82865989
2018	CAPITAL OIL	608000	40553	3692947436	3693248150	221294175	221594889	0.06	307286	300714	5.78390357
2019	CAPITAL OIL	614000	40933	4847122419	4847388200	193629747	193895528	0.04	348219	265781	5.78816837
2020	CAPITAL OIL	586000	39067	3046731006	3046929720	152733772	152346486	0.05	387286	198714	5.76789761

Source: * Annual reports of the companies
**Authors' compilation