Human Capital Accounting and Financial Performance of Manufacturing Firms in Nigeria

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ABSTRACT

Any organisation's success depends on the capacity of human capital to maximise other resources such as property, equipment and money efficiently, because human resources are the greatest assets at the disposal of companies. The aim of this study is to determine the correlation between human capital accounting and the financial performance of listed manufacturing firms in Nigeria. This study is more descriptive in nature and the application of scientific modelling techniques. The study was undertaken from the security and exchange commission platform on listed manufacturing firms spanning from 2010-2019. The study found that the variable of recruitment cost has a negative and significant relationship with the Return on Assets (ROA) and the variable of employee acquisition cost has a negative significant relationship with ROA. This implies that an increase in recruitment, employee acquisition, and employee staff costs will cause a decrease in ROA. Going by the result of this study, we conclude that there is no significant relationship between human capital accounting and the financial performance of listed manufacturing firms in Nigeria. Hence, the study explains why manufacturing firms have strong human capital but very weak financial performance while recommending that manufacturing firms should absorb the culture of capitalising and reporting all expenditures/investments on human capital that improve quality and productivity. Therefore, the implication of the study on the extant literature is that adequate justifications are provided with respect to the benefits derivable by the listed manufacturing firms when they value and report human capital.

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INTRODUCTION

A manufacturing company's principal asset is the human capital and the intellectual skills of its workers. Although all firms need strong and competitive human capital to succeed, the achievement of companies largely depends on the worth of their human capital Robbins (2013).

Human capital is a term used to describe humans who make up a firm workforce, although it is also applied to business environments or even entire nations in labour economics. Human resources are also the name of the unit of an entity that has ultimate accountability for executing specific management practices and policies (i.e. human capital). According to Nadler (1984), human capital is a relatively present term for the board, coined during the 1960s when workers took a shift as human rights in the Vietnam era came to brighter light. From these terms emerged a generally organisational management activity, coordinating a range of worker-related processes and becoming known, in time, as the 'personnel function'. Various scholars published work into how intellectual resources inside a business should be valued and recorded in such a firm financial statements (Abubakar, 2008; Bagudo, 2010).

Human capital gradually became the more customary name for this function, in the original instance in the United States as well as global or international firms, reproducing to the approval of a more quantitative as well as deliberate approach to workforce management, was demanded by corporate management to gain a competitive advantage, usage of small professional and extremely trained employees. On the other side, accounting is seen as an optimistic kid (Melville, 2009). The output may be the production of tangible products or the delivery of services for human satisfaction. The foremost factors of production are land, labour, capital, and entrepreneurs. While every company reports on and includes land, capital, and entrepreneurs in its financial statements, labour is not given much consideration, and hence, its expenditure only denotes periodic costs made by the organisation. The labour or workers are the human assets or resources organisations have. The fast advancement of manufacturing organisations in the United States, United Kingdom, other developed economies, and even in Nigeria recently, such as manufacturing-oriented companies, shifts the focus of management towards skill empowerment of their workforce (Obe, 2000). This is because workers are much more important in these companies compared with the other assets. Parton (1962) opined that in the business enterprise, a well-organised and loyal workforce may be a much more important asset than the stock of merchandise. The process of attributing a monetary value to human capital and its reporting as an asset in the financial statements of companies is referred to as Human Capital Accounting (HCA). However, there is a dearth of literature regarding the effect of human capital accounting on

financial performance attributes with evidence from Nigeria. More research is needed based on developing countries and using different measures of financial performance to establish the relationship between human capital accounting and the financial performance of listed manufacturing firms in Nigeria, most explicitly, from a developing country such as Nigeria. Also, the previous research depended on an 'ancient' Legitimacy theory, Agency theory, and Stakeholder theory, which may not be recently applicable due to changes over time. Our study is consequently sets out to fill these gaps identified and thus provide theoretical validation for the effect of human capital accounting on the financial performance of listed manufacturing firms in Nigeria.

Conceptual Framework

The concept of Human Capital Accounting (HCA) has been explained in so many ways, but the basic feature of the system remains the same in every definition. The American Accounting Association (AAA) (1973:23) described Human Capital Accounting as a method of defining, assessing, and communicating awareness of human capital to facilitate good corporate governance. This definition considers HCA as the method relating to the acknowledgement and the quantification of human capital for with the aim of supporting the active management of a company. The definition is not explicit as to what constitutes human capital expenditures and how it is to be recognized. An additional explicit definition of HCA is that given by Flamholtz (1974), which refers to HCA as the process, which involves measuring the cost of recruiting, selecting, hiring, training, and developing human assets by business firms and other firms. This gives an idea as to what human capital expenditure should be recognized for reporting and valuation reporting purposes. In other terms, this concept considers HCA to include calculating people's economic interest in organisations. Whereas the aforementioned definition of HCA focuses on the cost of refining and developing human capital, another definition considers the contributing aspect of human capital. Accordingly, Lau and Lau (1978) and Friedman and Lev (1974), interpret HCA as a tool for scientifically calculating both the commodity value of labour and the sum of wealth production that can be related to staff operations. In addition to understanding their financial effects, this concept includes the economic gain attributed to the human capital.

HCA is also perceived as a significant aspect of management information systems. Gupta (1991) describes the term as essentially an information network that informs management of what improvements to the human resources of the enterprise are occurring over time. It entails accounting for investment in workers and their the costs of replacing them, as well as the economic value of workers within an organisation. This classification regards HCA as an

information system capable of assisting the management in active decision-making comparative to the hiring and retention of workers. Therefore, HCA provides an all-inclusive look at one method of using human capital cost and value information in the decision-making process.

According to Newman (1999) , HCA refers to the quantity of the abilities of all workers of a company, at every level – management, supervisory and ordinary workers – their knowledge and mental capabilities yield value. This concept takes into consideration the rapid development in the service sector, where employees' expertise and analytical skills are the core elements of success. As such, HCA is seen as the prosperity of the workers knowledge and intellectual abilities added to the firmworker's knowledge and intellectual abilities added to the firm, thereby making it hard to earn profit and to succeed. Jasrotia (2004), also views HCA as a dimension and reporting of the value and cost of workers as firm resources. This definition is based on the premise that the awareness and critical abilities of employees are becoming more and more critical in decision-making on corporate investment. This is due to the fact that manufacturing industries are now overtaking the servicing industries and in the service delivery business, the knowledge and intellectual capabilities of employees matter more than any other tangible asset. According to Kodwani and Tiwari (2007), HCA is an attempt to identify, quantify and report investment made in the human capital of an organisation that is not presently under traditional accounting procedure, paid for. This definition focused on three key human capital areas: identification of what constitutes it, quantification of it in monetary terms, and reporting it in the financial reports of the firm. Human capital is simplistic in nature from the point of view of this description but requires refinement to decide what defines human capital for accounting purposes. Accounting for human capital involves the capitalization of investments and other expenditures on workers excluding salaries and wages. Nevertheless, only improvements can be capitalised that will boost the efficiency and profitability of the workforce (Jasrotia, 2004; Lev, 2001; Roslender, 2004). Yet Gates (2002) and Jasrotia (2004) thought that the degree to leverage human resource expenditures would be best left to reporting companies. Our reasoning has proven that capitalising on human maxim spending is best at building a cooperative operating climate. Any organisation's success depends on the capacity of human capital to maximise other resources such as property, equipment and money effectively and efficiently, because human resources are the greatest assets at the disposal of companies. There is growing recognition that, according to Flamholtz (1999), most of the world's developed economies have changed steadily but profoundly over the past few decades. They have moved from industrial economies where the core assets are plants and machinery to post-industrial economies, where the core assets are plants and machinery, to post-industrial economies, where the core asset is

intellectual property, specifically human capital.

Financial performance

In today's economic climate, performance is a core concept, rapid developments, fierce rivalry; rapid developments, fierce rivalry, and globalisation have influenced it. Financial performance is a degree of a company's policies and operations in monetary terms. It is a general degree of a firm's overall financial health over a given period of time and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregate. There are many different ways to quantify a company's performance. They are reflected such as return on investment (ROI), return on assets (ROA), and Return on equity (ROE) (George, 2005). For this study the return on assets would be considered.

Waiganjo et al. (2012) felt that measuring firm output is not a simple task for organisations with different goals such as profitability, employee satisfaction, efficiency, growth, social responsibility and the ability to adapt to the ever-changing environment. They also argue that success in terms of financial metrics, such as Return on Asset (ROA), has historically been conceptualised. The notion of firm viability in accounting poetry refers to profit, return on assets and economic value (Hanasson, 2004). The dimension of profitability can apply the use of return on equity (ROE), return on assets (ROA), return on sales (ROS), earnings per share (EPS), market capitalization growth, gross and net profit margin, economic profit, and Tobin's Q as a measure of performance are usually employed, by most the studies reviewed on performance. ROA entails the classical financial indicators or accounting ratios used by firms to measure profitability. This concept has been perceived and applied differently. ROA is an indicator of how profitable a company is, relative to its total assets. It gives an idea as to how efficient management is at using its assets to generate earnings.

Lev and Schwartz considered the use of the economic notion of human capital in financial statements when they proposed this method. They proposed the method to account for the difficulty associated with determining the value of human capital in financial statements. Based on Fisher (1897) theory, they concluded that capital is defined as a source of income stream and its worth is the present value of future income discounted by a rate specific to the owner of the source. Financial reporting for firms is largely an effort to measure financial performance in terms of how well or how poorly the reporting entity performed during a particular date (Van Beest et al., 2009). It is a procedure of making information public through the practice of reports that are considered financial in nature. Many types of financial reports can

be generated from the financial reporting of an entity such as balance sheet; profit and loss account; cash flow statement; Value-added statement; financial notes; accounting procedure statement;, such as balance sheet, profit and loss account, cash flow statement, Value-added statement, financial notes, accounting procedure statement, and opinion opinions of the auditors. Such accounts are considered annual statements, which are either quantitatively or qualitatively graded.

The quantitative accounts which are typically the key records in the sense of financial reporting are however, given considerable attention. According to Nzekwu (2009), corporate financial reporting refers to the providing of key quantitative depiction of individual companies that support a broad range of contractual relationships and more broadly enhance the knowledge climate. He continued that the consistency of an entity's financial statements influences the cash balance of the company as well as impacting the cost of debt from which the cash funds are priced. It may also help managers and investors identify and assess investment opportunities. This definition focused on an entity's providing information and how such information affects the reporting entity's cash flow. In a more substantial view, corporate financial reporting is regarded as a vital and capable means of dissemination of financial information.

 Salawu (2009), defined corporate financial reporting as the public reporting of operating and financial business data by a business enterprise via the annual reports and accounts. It is a direction full of rewards to the users of the reports, who use them more often in making various decisions. However, Beuselinck and Manigart (2007) acknowledged augmented costs associated with printing, limited copies available to the only selected markets, less timely information, past disclosure, and the use of archaic technology as major knotty features of corporate financial reporting. A firms financial reporting comprises of accounting records, which are the principal source of information for the preparation of the annual financial statements and for the efficient conduct of its affairs (Barth et al., 2006).

It is consequently essential that they are accurate and appropriate for their purpose. The accounting and information processes in which financial results are compiled will establish a framework for producing the organization knowledge required for successful and productive day-to-day operations method of the firm, and this should be consistent and compatible with the information in the financial statements (Beuselinck & Manigart, 2007). The account and the information that is derived from them are important to the exercise of members' responsibilities to the organisation and its stakeholders. Financial performance can also be viewed in terms of those for whom the reports are intended Salawu (2009). At one end of the gamut are the annual financial

statements of an organisation, which are the main means of demonstrating its responsibility to its stakeholders; While the other end is internal reports, which aim to provide managers with information for decision-making Salawu (2009)). The reliability of a firm's accounting records demands that all reports are compiled using reliable principles and data.

Financial reporting's main objectives are to yield complete, relevant, accurate, timely and reliable financial information to demonstrate and maintain account-ability, meet statutory reporting requirements, account for the financial perfor-mance of an organisation's stakeholders and support decision-making (Bello, 2005; K. I. Dandago, 2003). Van Beest et al. (2009) claimed that whilst the key objective of financial reporting was to include superior financial reporting details on public bodies, majorly of a financial type, useful for financial decision making. They added that providing high-quality data on business reporting is important as it will certainly affect capital providers as well as other stakeholders in invest-ing money, credit, and comparable resource allocation decisions that enhance market efficiency. The Nigerian Accounting Standards Board, in its Statement of Accounting Standard No.2 (details when being made public in the Financial State-ments) provides insight into the financial practices and overall situation of the reporting entity which again is useful to existing and potential users, assessing the stewardship of the entity's management and for making economic decisions.

Principles of disclosure and transparency require firms to report their financial facts which may affect the readers' judgement (Kieso et al., 2004). By concept, the disclosure relates to the process of providing details, by footnotes, supple-mentary schedules, or other methods, regarding things in the financial state-ments (Shaw, 2003). Disclosure is sometimes used as equal to financial report-ing. When adequate and qualitative accounting information is disclosed, it is expected to reduce asymmetric information between management and stake-holders, especially investors and lenders (Verrecchia, 1999). Unequal complex-ity exists when more detail is accessible to management, and more discretion to pick accounting practices Milne (2002). This ensures transparency is likely to boost collaboration efficiency between the firms and their owners (Archambault & Archambault, 2003). There are abundant attempts to explain the financial performance of companies in the fields of strategic management, accounting, finance, marketing and management science.

Return on Assets (ROA)

The return on assets measures the effectiveness of the economic unit in using its assets to generate profit, especially manufacturing, the higher this ratio, the better the economic unit of them as it indicates the management efficiency

in using its assets to generate profit Beuselinck and Manigart (2007)). Carper (2002) posited that Return on Assets (ROA) is the mostly used method of financial ratios. ROA existed in the early 1919 when the Dupont Company used it as the top of its ratio triangle system. Gibson (1978)surveyed different types of of ROA. The study revealed that each version occupied at least a portion of 90% of respondents as a preferred measure of financial performance. According to Ahmed et al. (2011) the performance of any firm not only plays the role to increase the market value of that specific firm but also leads towards the growth of the whole industry which ultimately leads towards the overall prosperity of the economy. Waiganjo et al. (2012) felt that measuring firm output is not a simple task for organisations with different goals such as profitability, employee satisfaction, efficiency, growth, social responsibility and the ability to adapt to the ever-changing environment. They also argued that success in terms of monetary metrics, such as Return on Asset (ROA), has historically been conceptualised. Return on assets (ROA) is a pointer of how lucrative a company is comparative compared to its total assets. ROA gives an impression as to how competent management is at using its assets to make earnings. ROA is derived by dividing a company's net income by total assets. As a formula, it would be expressed as:

Return of Assets = Net Income/Total Assets

Higher ROA indicates more asset efficiency Investopedia (2020). involvesaccounting ratios used by organisationscontrarily. Return on assets (ROA) is a pointer, comparative to total assets. It gives an insight. Return on assets (ROA) is a financial ratio that shows the percentage of revenue a firm earns in relation to its total resources. It is usually expressed as net income divided by total assets. Net income is derived from the income statement of the company and is the profit after taxes. The assets are read from the balance sheet and include cash and cash-equivalent items such as receivables, inventories, land, capital equipment as depreciated, and the value of intellectual property such as patents. (Encyclopedia, 2021). Firms group ROA answers the question: What can you do with the assets that you have available? The higher the ROA, the better the management. But this measure is best applied in comparing companies with the same level of capitalization. The more capital-intensive a business is, the more difficult it will be to achieve a high ROA. A major equipment manufacturer, for instance, will require very substantial assets simply to do what it does; the same will be true for a power plant or a pipeline. A fashion designer, an advertising agency, a software firm, or a publisher may require only minimal capital equipment and will thus produce a high ROA Encyclopedia (2021).

EMPIRICAL REVIEW

Adebawojo (2015) has studied accounting and corporate performance in human capital. The study examined the effects of accounting for human capital on the performance of Nigerian firms. The research adopted an empirical Ex-post facto research design, on a sample of 18 listed banks in the Nigerian capital market. The studies employed primary data with the aid of a well-constructed questionnaire designed to collect relevant information from the respondents on a six steps Likert Scale and validated through peer review with Cronbach Alpha Coefficient of 0.807 and 0.870 for human resources and organisation performance respectively. The hypotheses were tested using a simple regression model. The results of the analyses confirmed that human capital accounting greatly influences the performance of the banks, and that human capital-related information is also relevant to the sampled market value of Banks in Nigeria.

S. R. Dandago and I (2013) investigated the disclosure of human resources accounts in financial reports from Nigerian companies, the research used a sample size of 50 companies listed in the Nigerian stock exchange market, the study also employed content analysis method and 17 indexes were used to show the extent of disclosure. The results show that Nigerian firms commonly expressed their human resources in terms of narrative and qualitative rather than quantitative or monetary terms. The results additionally showed that, companies in Nigeria selected any methods favourable to them in disclosing human resources accounting information, and more than half of the companies sampled have disseminated knowledge covering 7 products to 16 things out of 17 objects. The studies concluded that the level of disclosure of accounts of human capital is below average.

Syed (2009) measures the factors of the intellectual resources and business characteristics accounts using fifty-five (55) randomly chosen firms and the transparency model for human resource accounts. A variety of theories were evaluated, the findings showed that 25 percent of human resource details were released on average firms, in addition, the analysis showed that there is a strong positive association between business scale, competitiveness, and disclosure of human resource accounts, but no connection was observed between client age and disclosure of human resource accounts.

Gon (2005) studied commercial banks' intellectual capital performance in Malaysia using a sample of all banks listed for three (3) years; the study adopted an efficiency coefficient called VAIC. The findings demonstrated increasing resource productivity for the analysed banks than for the operational and labour efficiencies employed. In comparison, domestic banks were found to be

less effective than international banks, the result also indicated a high rate of disclosure of human capital and the banks earned. This finding was consistent with the findings of Mohiuddin et al. (2006), who studied human resource accounting disclosure in Bangladesh over a four-year period using the sample of all banks listed, and found that there is a noteworthy relationship between human resource accounting disclosure and bank performance.

From the above mentioned studies, it became imperative for this study on the effect of human capital accounting and the financial performance of manufacturing firms in Nigeria. The research aim is therefore to investigate empirically the effects of Human Capital Accounting (HCA) components on the financial performance of manufacturing firms in Nigeria ranging from 2010 to 2019 periods using Return on Assets (ROA) as the financial ratio.

4.0   Empirical Methodology

The research follows the following methods

4.1   Analytical Model and Method of Data Analysis

The model for this analysis had been adapted from the Ahangar (2011) and Sampson and Onumah (2013) models. The first model is to associate recruitment cost (RC), employee acquisition cost (EAC) and employee staff cost (ESC) with ROA

In a bid to understand whether the independent variables: RC, EAC, and ESC significantly affect the dependent variable, ROA.

ROA_{it} = βo+λi+β_1RC+β_2EAC+β_3ESC+e_{it}

ROAit = (RETURN ON ASSETS) = Profit before interest and tax scale by total assets firm i at time t

RCit = (RECRUITMENT COST).

EACit = (EMPLOYEE ACQUISITION COST).

ESCit = (EMPLOYEE STAFF COST)

eit = Error term

βo = Intercept (constant)

The independent variables which are recruitment cost, employee acquisition cost, and employee staff cost was regressed against dependent variables of return on assets (ROA).

The test statistic is given by the following formula:

t = e$\beta\kappa$/s$\beta\kappa$

Where:

e$\beta\kappa$ **=** the sample estimate of the of the parameter $\beta\kappa$

S$\beta\kappa$ = the estimated standard deviation of the sampling distribution **e**$\beta\kappa$

Therefore, to test the significant of the individual predictor variables, k, we will test the null hypotheses H0 against the alternative Ha:

H$_o$: $\beta\kappa$ **= 0**

H$_a$: $\beta\kappa \neq$ **0**

Thus the rejection condition under .05% alpha level will be that the absolute t, /t/ of each of the predictor variables, RC/t/, EAC/t/ and ESC/t/ is greater than α/2 since it is a two-tailed test or the corresponding p-value is less than .05

4.2   Data Description and Sources

The sample size is determined in this study based on the accessible population. The work came up with some filters in order to make accurate analysis, therefore accuracy and availability of the data is very crucial for studies of this nature. Kurawa and Kabara (2014) outline the process of sample size which are, firstly, these companies must be in existence for at least twelve years after being in the Nigeria Stock Exchange as at 31st December, 2019. Secondly, the company annual report with relevant data to the study must be available at the Nigeria Stock Exchange. Companies that did not meet any of the criteria were excluded. After applying the two filters, sixteen firm out of hundred qualified as the working population of the study which also served as sample size. This was because of the dynamic relationship between the factors that existed and the precise calculation of the relationship between accounting for human capital and the financial performance of manufacturing firms in Nigeria. The use of judgmental technique was used because of Covid – 19, the Nigeria Stock Exchange was closed, and we worked with companies that have their data on the website. Sixteen (16) listed manufacturing firms in Nigeria, their data came from their Nigerian stock exchange financial records Fact Book.

Source: Nigeria Stock Exchange (2021)

Two key sets of variables are of interest in this paper; HCA and the effects on financial performance. There are several measures of financial performance but in this paper return on asset (ROA) and associate recruitment cost (RC), employee acquisition cost (EAC) and employee staff cost (ESC) are used to capture the effects of HCA. Data collection methods are an integral part of research design and each method has its merits and demerits (Sekaran & Bougie, 2016). Figures were collected from the period of 2010 to 2019 fiscal year financial statements were collected from the period of 2010 to 2019 fiscal year financial statements

Table 1.

Manufacturing companies selected from two sectors as the sample size.

S/N	Names of Companies	Sector	Sub sector
01	Guinness Nigeria Plc	Consumer goods	Beverages (alcoholic)
02	Nigeria Breweries Plc	Consumer goods	Beverages (alcoholic)
03	Dangote Flour	Consumer goods	Food product (diversified)
04	Int'l Breweries Plc	Consumer goods	Beverages (alcoholic
05	Flour Mills Plc	Consumer goods	Food product (diversified)
06	Dangote Sugar Refinery Plc	Consumer goods	Food product (nonalcoholic)
07	National Salt Company	Consumer goods	Food product (nonalcoholic)
08	Cadbury Nigeria Plc	Consumer goods	Beverages (non-alcoholic)
09	Nestle Nigeria Plc	Consumer goods	Beverages (non-alcoholic)
10	Northern Nigeria Flour Mills	Consumer goods	Food product (diversified)
11	PZ Cussons Plc	Consumer goods	Food product (diversified)
12	Unilever Nigeria Plc	Consumer goods	Food product (diversified)
13	Vital foam Plc	Consumer goods	Hospitality
14	Beta Glass Plc	Industrial goods	Building Material
15	Cutis Plc	Industrial goods	Building Material
16	Lafarge Wapco Plc	Industrial goods	Building Material

of the sampled companies. The sample of the data was made only from the manufacturing companies. The work uses a secondary source of data with the hypotheses tested from the sample size of the company's annual report. Ten years (2010 to 2019) data of the sampled companies were gathered. This would have up-to-date information on manufacturing companies about the financial results of Human Capital Accounting. Three (3) techniques were used in the analysis of the figures collected for the work: Descriptive Statistics Analysis, Correlation Analysis and Multiple Linear Analysis.

5.0   Empirical Analysis and Results

The descriptive statistics show the nature of the figures. The summary of descriptive data of the dependent and independent variables areA presented in Tables 2 and 3. The descriptive statistics include mean, standard deviation, minimum and maximum which were computed using Excel version 2016.

Table 4 resents a summary of descriptive statistics of independent and dependent variables used in research. Statistics indicate the average, median, standard deviation, minimum, maximum, skewness and kurto

Sources: Researcher's computation (2021)

Table 2.

Statistics	Recruitment cost	Employee acquisition cost	Employee staff cost
Mean	6328212	10033996	85767744
Standard Error	1015597	162608	8161446
Median	6683105	3	85384633
Standard Deviation	3211599	97363	25808757
Sample Variance	1.03E+13	5142125	6.66E+14
Kurtosis	-0.53555	2.64E+13	-1.23458
Skewness	-0.65218	-1.47705	0.080041
Range	9575309	0.279916	75702613
Minimum	374831	13953279	47464893
Maximum	9950140	3704884	1.23E+08
Sum	63282124	17658163	8.58E+08
Confidence Level(95.0%)	2297440	1E+083678455	18462473

Above, shows the descriptive statistics of the variables used in the analysis. The result showed that the maximum amount paid for recruitment cost for the period 2010- 2019 was about N99.5 while the minimum amount paid for recruitment cost for the period was about N3.748. Onthe averageaverage, about N63.282 were paid for recruitment costs. Secondly, the minimum amount of employee acquisition cost paid was N3.705, while the maximum amount paid to staff for welfare was N17.658. Furthermore, the minimum number of employee staff cost was N47.645, while the maximum number of employee staff cost was N123.

Dimension-based descriptive statistics on the financial performance

Sources: Researcher's computation (2021)

Table 3 shows the dimension- based descriptive statistics of the Financial Performance of Manufacturing Firms in Nigeria. It shows that the mean rating of ROA was 139.695, SD 27.83

Regression analysis

Regression analysis is used to determine the effect of human capital accounting on financial performance of the listed manufacturing companies traded in the Nigeria stock exchange. The results from the regression analysis for the firms are presented below: The model captures firms performance of human capital accounting in Nigeria.

Table 3.

Statistics	ROA
Mean	139.695
Standard Error	8.80032
Median	139.595
Standard Deviation	27.82905
Sample Variance	774.4562
Kurtosis	-1.58502
Skewness	0.185152
Range	75.7
Minimum	103.24
Maximum	178.94
Sum	1396.95
Confidence Level(95.0%)	19.90771

Table 4.

Summary of regression analysis on the relationship between human capital accounting and ROA

Variable	coefficient	Std Error	t-statistics	Prob.
C	-8.4E-06	2.57E-06	-3.25392	0.011633
RECRUITMENT COST	-2E-06	2.98E-06	-0.67617	0.517996
EMPLOYEE ACQUISITION COST	4E.06	1.01E-06	-455662	0.001749
EMPLOYEE STAFF COST	-9.5E-07	1.8E-07	-5.27705	0.000749
R Square	0.569615331	Mean Dependent Var.	139.695	
Adjusted R Square	0.515817248	S,D dependent var	27.829055406	
Sum Square Residual	2999.826869	Durbin-Watson	1.943305	
F Statistics	10.58802			

Sources: Researcher's computation (2021)

Table 4 displays the summary of regression analysis on the relationship between human capital and ROA. It shows human capital of listed manufacturing firms proxy by Recruitment Cost, Employee Acquisition Cost, and Employee staff cost. When the predictor variables were regressed on ROA, the coefficient of determination (R-Squared) value was found to be 0.569615331. The Adjusted R-squared value of 0.515817248 displayed that the predictor variables jointly explained about 57% of the changes in the response variable whereas 43% were unexplained by the available data. The results show that Recruitment cost (t =

-0.67617, pro = 0.517996), is not statistically significant at .05% alpha level while Employee Acquisition Cost (t = -4.55662, pro = 0.001858) and Employee Staff cost (t = -5.27705, pro = 0.000749) were far less statistically significant at .05% alpha level. The Durbin Watson Statistic was 1.943305. From the analysis (Table 4.3), the variable of Recruitment cost has a negative significant relationship with return on asset. This is based on the Coef. = -2E-06, t-value = -0.67617 and P-value = 0.517996. This result implies that an increase in Recruitment cost will cause a decrease in return on asset. On this basis we accept the alternative hypothesis of a significant relationship between Recruitment cost and firm performance in terms of return on asset. However, this finding did not align with previous work reviewed.

The results from the regression table shows the variable of Employee Acquisition cost has a negative significant relationship with return on asset. This is based on the Coef. = -4E.06, t-value = -4.55662 and P-value = 0.001858. This result infers that an increase in Employee Acquisition cost will cause a decrease in return on assets. On this basis, we accept the alternative hypothesis of a significant relationship between Employee Acquisition cost and firm performance in terms of return on asset. The findings of the study are congruent with that Syed (2009) and Mohiuddin et al. (2006) but contradicts contradict the finding of Enofe et al. (2013).

Model: Human Capital Accounting and ROA

ROA$_{it}$ = β_0 + λ_1+β_1RC+β_2EAC+β_3ESC+e $_{it}$

The result of the test as presented in Table 4 has β in the column headed coefficients, t in the column headed', p-value in the column headed prob.

We are testing the null hypothesis that:

β_1, β_2, β_3 and β_4 = 0.

As shown in Table 4

β_0 = -8.4E-06 intercept /t/=-3.23392 with a p-value of 0.011633

β_1 = -2E-06, RC /t/=-0.67617, p-value =0.517996 (p>.05).

The application of Decision Rule: Retains H01

β_2 = -4.E-06, EAC /t/=-4.55662, p-value=0.001749 (p<.05)

The application of Decision Rule: Reject H02

β3 = -9.5E-07, ESC /t/=-5.27705, p-value=0.000749 (p<.05)

The application of Decision Rule: Reject H03

Based on our test of result, as it is empirically established, we have very strong evidence that the $\beta 0$, RC, EAC and ESC in the regression equation do not significantly affect ROA.

CONCLUSION AND POLICY IMPLICATIONS

In the study, three independent variables such as recruitment cost, employee acquisition cost and employee staff cost were employed to regress return on assets and return on equity. It was observed that the two indicators of financial performance, that is, return on assets and return on equity had a negative but significant effect on recruitment cost, employee acquisition cost and employee staff cost.

Going by the result of this study, we conclude that there is no important correlation between human capital accounting and the financial performance of listed manufacturing firms in Nigeria. Hence, this explains why manufacturing firms have a strong human capital but a very weak financial performance. This empirical enquiry has focused on the relationship between human capital accounting and the financial performance of listed manufacturing firms in Nigeria over from the period of 2010 to 2019. In the study, three independent variables such as recruitment cost, employee acquisition cost and employee staff cost were employed to regress financial performance, such as return on assets and return on equity. It was observed that the two indicators of financial performance, that is, return on assets and return on equity had a negative but significant effect on recruitment cost, employee acquisition cost and employee staff cost.

Staff should be well compensated in terms of reward so as to bring out the best in them. In the same vein, in order to boost firm performance, it has become imperative for firms to adopt viable human capital accounting variables in their operations. Firms should ensure that the relevant training and retraining packages designed for performance improvement are well embraced by all employees for better performance on the job; organisations should avoid undervaluation of employees as it has a negative effect on the morale of the employees, which can affect their productivity; and most importantly, the human capital value should be ascertained and introduced to the balance sheet as an intangible or intermediate asset as it increases the asset of the organisations.

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