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HUMAN RESOURCES ACCOUNTING ON THE PROFITABILITY OF QUOTED MANUFACTURING FIRMS IN NIGERIA

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Abstract

This study examined the effect of human resources accounting on the profitability of quoted manufacturing firms in Nigeria. Specifically, the study analyzed the effect of personnel cost, and staff strength on profitability of quoted manufacturing firms in Nigeria. The study captured 10 randomly selected manufacturing firms, over the period of 10 years spanning from 2011 to 2020. Data were collected from the annual reports of the selected firms. Collated data were analyzed using panel estimation techniques including pooled OLS, fixed estimation and random effect estimation. Result showed that personnel cost exert insignificant negative effect on profit after tax to the tune of -0.2746926 ($p > 0.05$), which indicated that profit after tax decrease by 0.27% whenever there is increase of about 1% in personnel cost. Secondly, result showed that staff strength exert significant positive effect on profit after tax, with estimate of 8.7533181 ($p < 0.05$) which shows that profit after tax increase significantly by 8.7% for every 1% increase in staff strength. The study concluded that resources accounting contribute substantially to the profit after tax of quoted firms in Nigeria. Therefore, this study recommended that manufacturing firms should ensure that personnel cost structure are designed in a way that motivate employees to do more in order to enhance their commitment and diligence for profitability maximization. Also, managers should ensure that people engaged as management and non-management employees are adequately assessed and examined, to ascertain that addition to employees is based on quality in order to facilitate profitability.

Keywords: Human Resources Accounting, Profitability, Manufacturing firms, Nigeria

1. Introduction

To ascertain the growth and development of any organization, the effectiveness of human resources must increase in the right proportion. Aside human resources the other resources cannot be operationally and effectively utilized. The initial health of the organization can only be showcase or discovered by the human behavior variables like group loyalty, skill, motivation and capacity for effective interaction, communication and decision making. These resources are broadly categorized into two categories; human and physical resources. Human resources known as men are observed to be active resources. The physical resources includes; materials, machinery, money, buildings and facilities. In recent years, the Nigerian manufacturing sector has faced numerous challenges, ranging from infrastructural deficiencies to economic volatility (Oyeyinka & Adeleye, 2020). Amidst these challenges, there has been a growing recognition of the importance of human capital in driving organizational performance and competitiveness (Akintoye & Ogunnaike, 2019). However, traditional accounting practices often fail to adequately capture the value of human resources, leading to an underestimation of their contribution to profitability (Ogbogu, 2016).

The outcome of an organization depends on how best the uncommon physical resources are effectively utilized by the human resources. What is relevant is that the physical resources are being activated by human resources as the physical resources cannot perform on their own. Therefore, the efficient utilization of the inactive resources relies on the quality, skills, perception and character of the people that is the human resources in action. The word human resources indicate the totality of all the parts such as skill, creative abilities, innovative thinking, intuition, imagination, knowledge and experience owned by all the people. An organization possessed with adequate physical resources may not always perform excellently except it has right people to control its' affairs. Hence, the importance of human resources cannot be jettisoned. Regrettably, till now the importance of human resources is not taken seriously by the top management of organizations neither is it recognized as an asset in accepted system of accounting. For ages, the importance of human resource was not taken seriously by organizations. Therefore, at this point, it become necessary to accord due focus on proper development of such useful resource of an organization.

Due to the great importance of the human resources, and that the goal of management is the optimal use of all resources, the need to provide relevant information about it, has called for changing the approach taken in accounting for the cost of human resources, since the traditional accounting failed to disclosure in their financial reports for any information related to those resources, and many enterprises have sought to measure the amount of investment in human capital, and how to rationalize its use. This subject has become one of the contemporary accounting problems, where that traditional accounting confined itself to accounting procedures that relate to salaries and wages, but concerning efficiency, skill and expected production capacity in the future of this resource are completely absent. The emergence of the modern service enterprises, which rely on human resources in performance, has led to interest in knowing the quantitative value of human resource, as the adequacy, effectiveness and efficiency of workers is a key factor in achieving efficient use of huge physical investments in modern industries (Hannan, 2003).

In response to this gap, Human Resources Accounting (HRA) has emerged as a potential solution to better measure and manage human capital within organizations (Egbunike & Osundu, 2017). HRA involves the systematic measurement and reporting of the value of human resources in financial terms, thereby providing insights into their impact on organizational performance (Adeyemi, 2020). While HRA has been extensively studied in the context of developed economies, its application and effectiveness in emerging markets such as Nigeria, particularly within the manufacturing sector, remain relatively unexplored (Akpan, 2018). The rationale for investigating the effect of HRA on the profitability of quoted manufacturing firms in Nigeria stems from several factors. Firstly, the manufacturing sector plays a crucial role in driving economic growth and development in Nigeria, contributing significantly to employment generation and industrial output (Okafor & Nwankwo, 2019). Therefore, understanding how

HRA practices influence the performance of manufacturing firms is essential for enhancing sectoral productivity and competitiveness. Furthermore, the adoption of International Financial Reporting Standards (IFRS) in Nigeria has heightened the need for transparent and comprehensive reporting of organizational assets, including human capital (Oyelere & Laswad, 2016). By examining the impact of HRA on profitability, this study aims to contribute to the ongoing discourse on accounting practices and their implications for organizational performance in the Nigerian context.

Succinctly, most of the studies as reviewed in this study captures largely wages and salary aspect of human resource cost of labour directly involved in the production process especially the non-management staff with no consideration given to the aggregate overview of the personnel cost (see for instance Ohaka, Kalagbor and Obulor, 2020) . In the same vein none of the previous studies on the subject matter factors in the role of firms' staff strength in modeling how human resource affect profitability of quoted firms especially in Nigeria. Hence this study examined the effect human resources accounting on the profitability of quoted manufacturing firms in Nigeria, by analyzing the effect of personnel cost and firms' staff strength on profitability of manufacturing firms in Nigeria.

2. Literature Review

Conceptual Review

Human Resources

Dunka (2018) described human resources as the abilities, effort and time which employees bring to the organization towards achieving organizational goals. Godwin and Ude (2021) also defined human resources as the resources provided by the work force or people employed in the business. It is the service which the businesses or employers receive from employee during business activities. Nwauzor and LongJohn (2020) affirmed that human resources represent the intellectual capital engaged in the business organization towards the production and distribution of goods as well as other administrative work. Human resource of quoted manufacturing firms therefore, remains a very vital resource that determine to a very large extent, the going concern of such organisation. They physical, psychological, and strategic actions put into planning, coordination, organisation, communication, marketing, research and development of listed manufacturing companies especially where serious competition is involved before performance could lead to survival (Asamu, Olawale & Ajibare, 2020).

Human Resources Accounting

Human resources accounting involves the determination of the amount spent on intellectuals and abilities that employees provide for the running of the business firms towards the growth and continuity of the organization (Catherine & Tamunoemi, 2020). According to Bontis and Fitzenz (2002), human resources accounting is the amount of workers' knowledge, skill and abilities that is put into the business as part of the requirement to drive the organization towards attainment of its objectives expressed in monetary term. Godwin and Udeh (2021) explained that human resources accounting represent the activity of knowing the cost incurred or invested on employee recruitment, salaries and wages, training and development as well as other benefits designed for employee by the organization. It is the identification and reporting of expenses made on human resource by the organization itself whether in the form of recruitment process, payment for service rendered, and any forms of compensation and benefits. In other word, Rahaman, Hossain and Akterl (2013) reiterated that human resources accounting is the process of measuring the expenses incurred to recruit, select, hire, train and develop human asset by the organization. In summary, human resources accounting involves measurement of cost and value for people of an organization, including the way of thinking about management of people in formal organization (Seth, 2009).

Profitability

Profitability is the ability of an organization to generate profit using its combination of resources, money, man and materials. According to Harward and Upton (2012), profitability is a measure of efficiency which described the ability of the firm to engage investments in assets or materials or man or combined to earn an income from their utilization. Muya and Gathogo (2016) also described profitability as an indicator of efficiency which portrays how opportunities and resources utilized in the business operations earned the organization an amount of income. Onyam, Usang and Enyisi (2015) emphasize that profitability presents how a company's management structure can efficiently produce profit by using all the resources available in the company and in the market. It is also used to measure the firm's earning capacity and considered as a firm's growth and success indicator (Mutia, Ahmad & Manohara, 2016).

Human resources accounting is believed to have positive impact on firm profitability based on different reasons. According to Ovidiu-Iliuta (2013), cost incurred on human resources serves as motivating factor for employee diligence and commitment which ensure employee retention, productivity and performance. Oladejo and Ojokuku also viewed human resources as an asset crucial in production of goods and services and other business activities since it coordinate other factors of production and direct business activities towards achieving organizational goals among which is profitability. It is explained that spending on human resources whether to increase its quantity or quality, entails increase in asset of the business which cam facilitate increase in level of profit or income for the organization. On the other hand, human resources accounting is believed to have adverse effect on profitability based on the argument that expenses incurred on employees are cost charged against the income realized and hence reduces profit and capacity to secure profitable opportunities for future earnings (Bankole, 2020).

Theoretical Review

The Human Capital Theory

Human capital theory was developed by Schultz in 1961 but later extended by Becker in 1964 (Seth 2009 cited in Lambe, Ordunbe & Ojeh, 2022). The theory has its foundation in the field of labour economics which is an aspect of economics that deals with the quantitative measure of the workforce or labour force. The theory proposed that education or training raise the level of productivity of the labour force through acquisition of useful knowledge and skill as well as capacity to generate more earnings. This implies that investment or expenditure business incurred on employees or staff can increase their level of knowledge and skills including their ability to generate more income which propel increase in employee productivity, hence the tendency for enhancing profitability The theory also explained that expenditure on labour force is very costly and its return to the business organization should be adequately considered before deciding on the amount of expenditure or investment to be made (). That is, cost incurred on acquisition (recruitment, selection and hiring), training and development of human resources should reflect the tendency for encouraging the employees to contribute to profitability in order to ensure that investment yield positive return for the firm.

Empirical Review

Bassey and Tapang (2012) investigated expensed human resources cost and its influence on corporate productivity: A study of selected companies in Nigeria. The study specifically examined the influence of expensed human resource cost on corporate productivity. The study collated data from 10 companies listed in Nigeria Stock Exchange. The data collated were analyzed using correlation analysis. The study revealed that expensed human resource (remuneration, protection and dismissal/compensation) costs are important determinants of expensed human resources cost and does significantly influence corporate productivity. The study concluded that manager should recognize the critical importance of compensation and benefits since these represent significant costs for the organization.

Ezeagba 2014) examined the need for inclusion of human resources accounting in the balance sheet. Specifically, the study attempted to bring the views of different researchers on the concept of human resource accounting into focus and the practicability of this concept, peruse the objectives of human resource accounting, different valuation methods from various literature emphasizing the need to show human asset in the balance sheet and finally sensitizing professional accountants to an in-depth look at the balance sheet and for professional bodies to bring up Accounting Standards to back up adequate treatment of human assets in the balance sheet. The study concluded that accounting for human resources will encourage employees to develop themselves in terms of skill and qualification so as to attract a higher value. It will also reduce labour turnover as valuation method may differ from company to company which will likely lead to a psychological effect on employees. This is based on the assumption that human beings are rational. Also, considering the different needs of the users of financial statements, human resources accounting can be flexed to meet these needs for both external and internal purposes.

Okpako, Etube and Olufawoye (2014) analyzed human resource accounting and firm performance. Specifically, the study focused on the relationship between human resource accounting and firm performance in Nigeria. The study collated data from 2006-2010 for 7 companies quoted on the Nigeria Stock Exchange. The study analyzed data using regression analysis. The study revealed positive relationship between the firm's human resource accounting practice and firm growth achievements.

Amahalu, Nestor, and Mary-Fidelis (2016) examined effect of human resource accounting on financial performance of quoted deposit money banks in Nigeria. Specifically the study investigated the effect of staff cost on financial performance. The dependent variable, financial performance, was captured by return on asset, return on equity and Market-to book value of banks listed on the Nigeria Stock Exchange. The study adopted data collated over the period of 2010-2015 for 13 quoted banks listed on the Nigerian Stock. The study showed that human resources accounting has a positive and statistical significant effect on financial performance.

Omodero and Ihendinihu (2017) analyzed human resources accounting and financial performance of firms in Nigeria. Specifically the study examined The study collated data from 2011-2015 for 10 listed firms on the Nigeria Stock Exchange, data collated were analyzed with the use of multiple regression and T-test statistical tool used to test the hypothesis formulated in the study. The result showed that human resources contributed positively to the financial growth of organization.

Teni (2015) assessed the application performance management impact on organization performance of local company: study in West Java-Indonesia. The study specifically analyzed the effect of the performance of the company's performance management area. Organizational performance (dependent variable) was measured through four dimensions: financial perspective, customer perspective, internal business processes, and learning and growth perspective. Performance management was taken as explanatory variable was measured through three dimensions: performance planning, performance assessment and feeding it behind. The study employed primary data collected from 30companies. The study analyzed data using Partial Least Square. The study discovered that in the enterprise area, performance management affect the performance of the organization but the effect is not too large.

Onyekwelu, Osisioma and Uguanyi (2015) investigated the impact of human capital accounting on corporate financial performance: A study of selected banks in Nigeria. The study specifically examined the impact of human capital accounting on financial performance and market valuation. The study collated data for 2010 using 4 quoted banks in Nigeria. Corporate financial performance (dependent variable) was measured by Earnings after Tax while Firms Net worth and Share price are used as proxies for firms' valuation. The actual investments in human resources in terms of wages, salaries and allowances and pensions are used in this study as the proxies for the explanatory variable for human capital investments. The study revealed that there is significant increase in firm's networth when investments on human capital are treated as asset and capitalized as against the current practice where such expenditures are treated as mere revenue expenses thereby leading to gross undervaluation of firm's statement of financial position and income statement.

Edom, Egu and Adanma (2015) assessed the impact of human resource accounting on the profitability of a firm: evidence from Access Bank of Nigeria. The study focused specifically on the impact of human resources accounting on the profitability of Access Bank of Nigeria Plc.

The study adopted data collated over the period 2003-2012 for Access Bank of Nigeria Plc. The study analyzed data using Ordinary Least Square analytical technique. The study revealed that there is a positive relationship between the indicators of human resource cost (training cost, development cost and number of staff) and the profit of the organization.

Enyi and Adebawojo (2014) examined human resource accounting and decision making in post- industrial economy. The study specifically analyzed the probable effect of human resource accounting on the decision making process and business valuation method on the premise that firms in post-industrial economy operate within a competitive economic environment which require timely, effective and efficient decision to ensure success and survival. The result of the statistical analysis revealed that human asset significantly affects management decisions as supported by various empirical findings and relevant literatures which also considered employees as important asset critical to the survival of organizations within the competitive economic environment, there is need for this assets to be valued and capitalized like other intangible assets

Ofurum and Adeola (2018) assessed human resources accounting and performance of quoted firms in Nigeria. The study focused specifically on the relationship between human resources accounting and the profitability of quoted firms in Nigeria. The study adopted data collated over the period of 2011-2015 for 9 service firms quoted on the Nigerian Stock Exchange. The study analyzed data using Ordinary Least Square and Pearson Product Moment Correlation coefficient. The study revealed that there is no significant relationship between human resource accounting and the profitability of quoted firms.

Ezejiefor, John-Akamelu and Iyidiobi (2017) examined appraisal of human resources accounting on profitability of corporate organization. The study focused on the extent at which increase in staff salary has affected organizational profitability. The study hypothesized that staff salary has positive effect on organizational profitability, also the level of increment in staff and staff retirement benefits have positive effect on organizational profitability. The study employed data collated from 10 commercial banks in Nigeria. The study analyzed data using T-test statistical tool. The study revealed that the increase in staff has influence on organizational profitability: the level of increment in staff has influence on organizational profitability and that staff retirement benefits have positive effect on organizational profitability.

Appah Tebepah and Soreh (2012) analyzed human resources development mechanism and the performance of public sector accountants in Nigeria. The study focused specifically on human resources development on the performance of public sector accountants in Nigeria. The study revealed that job training, performance appraisal, career planning and reward and employee welfare positively and significantly affect the productivity of public sector accountants' in Nigeria.

Fariborz and Raiasheka (2011) investigated decision-making based on human resources accounting information a1nd its evaluation method. The study specifically examined whether investment decisions are affected by human resources accounting information disclosed in the financial statement or not? Secondly it explores as to what factors can interfere in this effect? Thirdly it examines which evaluation method of human resource is the most appropriate method consistent with Iranian companies in terms of qualitative characteristics of accounting information? The study employed data collated for 68 companies of Tehran Stock Exchange for the year 2009. The study analyzed data using descriptive/correlation analysis. The study revealed that human resources accounting information disclosure in financial statement is relevant with optimal investment decision. Also, the most effective and appropriate evaluating method of human resource consistent with current status of Iranian companies and institutions is the original cost method (Historical cost).

John (2016) examined human capital accounting information and firm's value: An analysis of selected quoted manufacturing companies in Nigeria. Specifically, the study the study investigated the relevance of human capital accounting information on the market value of quoted manufacturing companies in Nigeria. The study collated data over the period 2007-2014 for 50 quoted manufacturing companies in Nigeria. The study analyzed data using pooled Ordinary Least Square and Fixed Effect Model. The study revealed that human capital cost exerts a positive and a considerable relevance to market value, which therefore implies that the nature and form of investments on human capital require them to be considered as capital expenditure rather than recurrent expenditure as conventional accounting system treat it and that the capitalization of human resource investment in the annual reports has the propensity to increase corporate image of the company.

Dhanabhahyam (2016) assessed the impact of human resources accounting system on the decision making areas of human resources management practice. The study specifically investigated the impact of human resource accounting system on the decision making areas of human resource management practices. The study employed data for 100 staff of Canada banks, the collected data were analyzed using Correlation analysis and Multiple Regression analysis model validated through ANOVA and F Ratio. The study revealed that human resource accounting system helps in personnel selection process, recruitment, estimate cost and budget for the acquisition and development of human resources. Also, the study revealed that the study helps in utilization of human resources effectively by providing better reward administration and it is important in the evaluation process by developing reliable methods of measuring the value of employees to an organization. Therefore, the study concluded that all aspect related to the implementation of human resources accounting is closely associated and has 67.1 percent impact on the decision making area of human resources management practices among the bank professionals.

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Ulf Johanson (1999) examined why the concept of human resources costing and accounting does not work: A lesson from seven Swedish cases. The study specifically focused on how to increase the knowledge of how the implementation of the human resources costing and accounting could be achieved from a management control perspective. The study collated data from 8 controllers and personnel managers in a Swedish bank. The study revealed that attitude toward human resources accounting is positive in all seven studies.

Onyekwelu, Okoh and Iyidiobi (2017) analyzed the effect of intellectual Capital on financial performance of banks in Nigeria. The study focused on effect of intellectual capital on financial performance of banks in Nigeria. The data for the study were sourced from the annual reports of 3 banks for a period of ten years (2004-2013). Data collected in the study were analyzed using the pooled regression analysis. The study revealed that intellectual capital has a positive and significant effect on banks' financial performances of the banks but some are not significant. The results further showed that the banks are statistically different in both the intellectual capital and its financial performance indicators. It also shows that the banks with high intellectual capital also show high financial performance.

Halbast and Tarik (2019) investigated the impact of strategic human resource management practices on competitive advantage sustainability: the mediation of human capital development and employee commitment. The study specifically analyzed the influence of the strategic human resources management practice on the achievement of competitive advantage. The study collated data from 4public and 5 private universities in Erbil City of Iraq. The study analyzed the data collated using the Structural Equation Modeling (SEM) Technique with the use of Smart Partial Least Square. The study revealed a linear and positive influence of the strategic human resources management on the sustainability of a ‘competitive advantage’; strategic human resources management was also found to positively influence human capital development and the commitment of employees to the institutions; the influence of both human capital development and employees’ commitment were found to have a partial mediation in the strategic human resources management practices and sustainable competitive advantage (SCA) relationship. Finally, theoretical and management implications were suggested.

3. Methods

The model estimated in this study was an adaptation of the model used by Ohaka, Kalagbor and Obulor (2020), which specified firm’s performance as a function of wages and salary cost as presented in equation (i)

$$Y_{it} = \alpha_0 + \alpha_1 WSC_{it} + \varepsilon_{it} -------------- (i)$$

Where Y_{it} represent return on equity (ROE), and earnings per share (EPS)

The model was modified to include aggregate personnel cost other than just the wages and salary as well as the staff strength (measured in terms of total number of employed staff both management and non-management), alongside firm’s size as a control variable. Profitability was measured in terms of profit after tax. Hence, the model for the study is specified thus;

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$$PAT_{it} = \alpha_0 + \alpha_1 PSC_{it} + \alpha_2 FSS_{it} + \alpha_3 FZ_{it} + \varepsilon_{it} ------(ii)$$

Where: PAT is Profit after tax, PSC is personnel cost, FSS is firm's staff strength and FZ is firm's size.

Scope, Source(s) of Data and Method of Analysis

This covered a ten year period spanning from 2011 to 2020 across 10 randomly selected manufacturing firms in Nigeria including Dangote Flour mills, Nigerian Breweries, PZ Cusson, Cutix, Guinness, Nestle, Cadbury, Dangote Cement, First Aluminium, and Lafarge Plc. Data collated were analyzed using panel estimation techniques including pooled OLS, fixed effect estimation, and random effect, alongside post estimation test including Hausman test, Wooldrige test of autocorrelation, Wald test of heteroscedasticity, Pesaran test of cross-sectional dependence.

4. Result

Table 1: *Correlation Matrix*

	PAT	PSC	FSS	FZ
PAT	1.00000			
PSC	0.6744	1.00000		
FSS	0.8096	0.8193	1.00000	
FZ	0.7640	0.7919	0.8717	1.00000

Source: *Authors' Computation (2022)*

Correlation result presented in Table 1 showed that positive relationship between profit after tax and all other variables, personnel cost, firm staff's strength as well as firm size, given the coefficients of 0.6744 for PAT and PSC, 0.8096 for PAT and FSS with 0.7640 for PAT and FZ. This reflects that profit after tax move in the same direction with measures of human resources accounting (personnel cost and firm staff strength) as well as firm size. Other correlation coefficients of 0.8193 for PSC and FSS, 0.7919 for PSC and FZ as well as 0.8717 for FSS and FZ indicated that personal cost has positive relationship with firm staff strength and that firm staff strength has positive relationship with firm size. Consequently, there is positive strong relationship between the pairs of variables engaged in the study and hence, there is possibility of multi-collinearity among the variables employed.

Table 2: *Panel Estimation Result*

Coefficient	**Pooled**	**Prob**	**Fixed**	**Prob**	**Random**	**Prob**
C	-9.160562*	0.000	**-48.7024***	**0.006**	-7.77487*	0.022
PSC	-.0424563	0.808	**-.2746926**	**0.346**	-.1990269	0.419
FSS	1.510795*	0.000	**8.753181***	**0.000**	2.160191*	0.000
FZ	.3862049*	0.047	**-.1197988**	**0.771**	.124403	0.685
	R-square=0.6699 Adj R-square=0.6595 F-statistics= 64.93 Prob(F-stat)= 0.0000		**R-square=0.7906 Adj R-square=0.761** **F-statistics=27.37** **Prob(F-stat)=0.0000**		R-square=0.6575 Wald chi2(5)=44.48 Prob> chi2 =0.0000	
	Restricted F-test=5.57 ($p < 0.05$)					

			Hauman Test =9.28 (P=0.0258 < 0.05)

NOTE: ** connote significance at 5% level of significance.*

Source: Authors' Computation, (2024)

Table 2 revealed results of estimations using pooled OLS, fixed effect and random techniques alongside restricted F-test and the Hausman test. Evaluating the result for consistency and efficiency it was established that the most consistent and efficient estimation result is the random effect estimation, as such the discussion of for the study is based on fixed effect estimation result. As presented in Table 2, personnel cost has negative insignificant effect on profit after tax, given the estimate of -0.2746926 ($p > 0.05$), which indicated that profit after tax decrease by 0.27% whenever there is increase of about 1% in personnel cost. Result also revealed that firm staff strength has positive significant effect on profit after tax, with estimate of 8.7533181 ($p < 0.05$) which shows that profit after tax increase significantly by 8.7% when there is increase in firm staff strength. Result in addition depicted that firm size has negative insignificant effect on profit after tax, given the estimate of -0.1197988 ($p > 0.05$) which reflects that profit after tax decrease by about 0.119% when there is increase of 1% in firm size. Reported R-square statistics reflected that about 79.06% of the systematic variation in the profitability of selected quoted manufacturing firms as measured in terms of profit after tax can be explained by personnel cost, firm staff strength and firm size, thereby confirming the fitness of the model.

Table 3: *Post Estimation Test*

Wald test		
Null hypothesis	**Statistics**	**Probability**
Panel homoscedasticity	1.3030	0.4567
Pesaran test		
Null hypothesis	**Statistics**	**Probability**
No cross sectional dependence	-0.901	0.3676
Wooldridge test		
Null hypothesis	**Statistics**	**Probability**
No AR(1)panel autocorrelation	1.5939	0.1422

Source: Authors' Computation, (2024)

Result presented in table 3 revealed that there is enough evidence to reject null hypothesis on panel homoscedasticity, null hypothesis of no cross sectional dependence and null hypothesis of no AR (1) panel autocorrelation, given the reported probability statistics of 0.4567 > 0.5 for Wald test, 0.3676 > 0.5 for Pesaran test and 0.1422 > 0.5 for Wooldridge test. Hence, it can be established that assumptions of equal variance of residual terms, cross sectional independence and absence of serial autocorrelation for the estimated panel based model is valid.

Discussion of Findings

Result indicated that firm staff strength tends to enhance profit after tax of the selected manufacturing firms. That is manufacturing firm profitability can increase when there is increase in the number of staff engaged in business activities in the organization. This could be because increase in number of employees, both the management and non-management, can increase the level of physical strength, skill, knowledge and experience provided in the business activities which then enhances employees productivity and efficiency as well as effectiveness, thereby ensure increase in profit after tax.

Result also showed that there is tendency for increase in profit after tax of the selected manufacturing firms whenever there is increase in personnel cost, even if firms maintain the existing firm size, although this influence is not remarkable. This could be because personnel cost increment, result of whether manufacturing firm increases number of employees, raises employee salaries and wages, engage in employee training and development programmes as well as other forms of employee cost, is charged against the income realized thereby the tendency for reduction in profit after tax. However, the insignificant influence can be attributed to the uncertainty in the effect of personnel cost on employee commitment and performance, since it depends on the motivating factor of individual employees. Notably, the result of the study in terms of the effect of staff strength is in tandem with the submission of Edom, Inah and Adanna (2015) that number of staff as a measure of human resource accounting has positive relationship with profitability, although the study focused on banking firm rather than manufacturing firm. \

5. Conclusion and Recommendation

In view of the findings of this study, this study established that human resources accounting has significant influence on profitability of the firms. The implication of this is that appropriate reporting of human resources information in the financial statement of manufacturing firms can enhance their profitability level. However with the fact that personnel cost forms most relevance human resources information presented in the financial statements, proper attention need be given to its relevance in manufacturing firms. Therefore, this study recommends that manufacturing firms should ensure that personnel cost structure are designed in a way that motivate employees to do more in order to enhance their commitment and diligence for profitability maximization. Also, managers should ensure that people engaged as management and non-management employees are adequately assessed and examined to ascertain that addition to employee is not only in number but also in quality in order to facilitate profitability.

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