

Effect of Management Techniques and Financial Performance of Listed Manufacturing Firms in Nigeria

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ABSTRACT

The business world is getting more and more competitive on a global scale, and companies are coming up with innovative, effective ways to manage their operations in order to keep operating expenses to a minimum and boost performance through higher profits. As a consequence of the aforementioned, this research looked at the financial performance and cost-management techniques of listed Nigerian manufacturing companies. In order to accomplish these goals, a longitudinal research design was used. Thirty (30) carefully chosen listed manufacturing companies that had continuously released their audited annual financial reports between 2008 and 2022 were included in the study. The data were analysed using the panel multiple regression technique with the aid of statistical tools (E-view 10). The results of the study indicated that the financial performance of listed Nigerian manufacturing firms was negatively and marginally impacted by prime cost and absorption costs. The study came to the conclusion that prime cost and absorption expenses had no appreciable impact on financial performance in the context of Nigerian listed manufacturing enterprises. This conclusion suggests that manufacturing companies look at their whole cost structure to find places where costs can be reduced without sacrificing product quality. This could entail renegotiating contracts with suppliers, putting cost-cutting initiatives in place, or looking into different sourcing tactics.

Keywords: Management Techniques, Prime Costs, Absorption Costs, Financial Performance and Return on Sales.

INTRODUCTION

One of the most significant performance indicators for economic units is its financial performance as it indicates a company's profitability by representing operational profit as a proportion of capital employed (Oyerogba *et al.*, 2014). An organization's financial health is evaluated financially, with the firm's profitability ratio displaying the results. According to Okegbe et al. (2019), financial performance metrics are essential to economic units since they enable decision-making. Without a doubt, companies require robust and effective personnel to prosper and enhance their financial results, manufacturing companies need to become more adept at reallocating resources from unpromising areas to strengths with the most potential for growth. Regardless of a company's size, its ability to succeed is determined by the calibre, worth, and efficiency of its resource base. Financial viability provides a measure of a company's ability to make use of its resources to turn in profits (Okwo *et al.*, 2014). Effective costs management techniques are vital components of attaining strong financial performance and are crucial to appropriate functioning. Ineffective boards may result from poor cost management techniques, which may ultimately play a role in the firm's downfall. Inadequate costing practices may also result in fraud, dubious business deals, and a run on the



company's unemployment benefits, all of which could have a detrimental effect on the operation of the business and the whole economy (Udeh & Okeke, 2021).

Every company's ultimate objective is to maximise shareholder wealth through profit maximisation and cost minimization through effective cost management (Christian, 2019). Over the past few years, there has been an unequal development in the industrial sector. This brought an unexpected daunt to the industry globally. The economic downturn has affected the financial viability of many manufacturing companies and maximum profits must be pursued to achieve sustainable financial results. Many manufacturing firms ceased operations while other well-known ones amalgamated with competitors because of the expensive nature of production. Oyedokun *et al.*, (2019); and Siyanbola and Raji (2013) argued that a company's financial position is defined by its costs and profits. As sales increase, the capacity to produce (cost) also increases, this demand effective cost management. Innes, *et al.*, (2000) found that product/service cost, quality and productivity management are the remaining holy trinity of modern enterprises. Consumers are always asking for low-cost, high-quality goods and services with improved performance. Similarly, shareholders demand high returns on their investments. However, cost has become a determining factor in productivity, and the challenge is to produce within an acceptable cost.

The management of an organisation uses a variety of procedures known as cost management approaches in order to consistently achieve minimal operating costs. It addresses projected expenses, both past and present (Akindehinde, et al., 2022). Costs become a significant component of the company; the most significant costs are production, promotion and distribution costs. Costs arise from the of steering of core activities like managers' salaries, rent and phone bills, selling costs resulting from the sale of products like sales transfer, storage, cost of distribution, commission on sales, and agency costs. The cost of the product increases with cost, but the decrease in turnover will particularly have an adverse effect on manufacturing companies' financial viability (Husein, *et al.*, 2016).

Nigerian manufacturing firms have experienced decreased profitability and increased operational costs in recent years. The decrease in the production capacity of the energy sector affects manufacturing companies. Akintoye (2012) argued that poor infrastructure leads to higher costs and poor product quality, which puts most manufacturing companies at a disadvantage.

This study therefore aims to assess the impact of cost management practices and financial performance of manufacturing firms listed on Nigeria Exchange Group. It is in an effort to establish the prevailing trend in the adoption of cost management techniques in the operations of Nigerian manufacturing firms that the researcher has chosen this topic.

Research Hypotheses

Ho₁: Prime costs has no significant effect on return on sales of listed manufacturing firms in Nigeria

Ho₂: Absorption costing has no significant effect on return on sales of listed manufacturing firms in Nigeria

LITERATURE REVIEW

Theoretical Framework

Transaction Cost Economics Theory (TCE)

The economic theory of transaction costs was created by (Williamson 1979). Transaction costs are the expenses incurred by an economic system of businesses, according to Williamson. The trade-off between the costs and advantages of various inventory levels should be used to identify the ideal level of inventory.



Ordering and carrying expenses are incurred when maintaining inventory. The costs of creating an order or application, receiving, inspecting, and documenting the products received are all included in the order costs, which are related to the goods that are purchased. On the other hand, opportunity costs and inventory storage result in carrying costs, which are associated with keeping or maintaining inventory. Cost promotion, which is mostly predicated on transaction cost economics (TCE) theory, is the most significant and straightforward incentive for inventory management (Emery & Marques, 2011). In order to remain competitive, businesses must reduce expenses, which may be accomplished by maintaining inventory stocking costs to a manageable level. Stock market analysts also place a high value on this method (Sack, 2000). TCE is defined as several ways to minimise transaction costs through the organisation of transactions (governance structures, such as businesses, markets, hybrids, and bureaus) (Williamson 1979). According to transaction cost theory (Williamson, 1979), the best organisational design is one that minimises trade costs in order to achieve economic efficiency. According to the notion, every transaction results in coordination costs that need to be tracked, managed, and controlled. According to Williamson (1979), these expenses should be separated from production costs. Based on a comparison of transaction costs and internal production costs, a decision-maker can decide whether to employ a firm structure or source from the market. Cost is therefore the main factor influencing this kind of choice. At its core, TCE is a theory of efficiency: How do you perform and manage complex business processes to reduce waste? The performance objective should describe the effective plan, that is, the best alternative for the important features of the job. For example, managing the complexity, risk and repeatability of the buyer's commitment can be expensive; Internalization of the transaction through merger provides a better path than commercial transactions. TCE attempts to explain and understand both types of heterogeneity. The first is the difference between differences: What is the difference between different types of jobs? The second category is organizational diversity: What are the consequences for organizations that respond differently to corporate governance? The main goal of TCE is to understand collective discrimination: Which organizational response provides the lowest possible solution to the management of the enterprise? Understanding visual harmony is also an important part of the text written by TCE.

Cost Management and Efficiency Theory

Efficiency theory was first presented by Harvel Leibenstein in 1966. According to this approach, managers plan and manage expenses by keeping track of where, when, and what expenses are required. According to Steliaros (2008), costs are classified as either fixed or variable in the "traditional model of cost behaviour." Variable costs vary in direct proportion to changes in the output level. Managers in the second model are able to modify resources in response to variations in volume. Although production efficiency indicates the best material quality for a given level of output, many factors can influence or constrain variation. These conditions cause the "sticky" behaviour of the price, where the change in price is asymmetrical; high demand changes faster than low demand. The price of adjustment itself plays a significant role in determining whether adjustment takes place. For instance, if labour inputs are increased, search, recruitment, and training expenses may increase, and if labour inputs are decreased, severance payments may be necessary. When there is a cost adjustment, managers weigh the (increased) costs of releasing resources when operating costs decrease (increase) against the costs of alternatives that are not adjusted. Price adjustments may occur due to means of production, such as changes in operations, or may occur when management incentives differ between companies. To the extent that a manager's pay, job satisfaction, or other rewards are related to management performance, agency theory predicts that the cost regulation Self will encourage leaders to grow faster than they decline.

Thus, tests of asymmetric cost behaviour could be motivated by a theory (or theories) concerning individual adjustment costs. If so, one argument in favour of the null hypothesis would be that sufficient management checks and proper internal competition for limited resources shield the company from the impact of individual managers showing up as sticky (asymmetric) cost behaviour (Moel & Tufano, 2002). In addition



to the expenses involved, another barrier to adjustment is uncertainty about what may happen in the future. Managers can quickly determine a payback period for recovering adjustment expenses related to restoring the ideal resource level for future output if they have confidence in the amount of demand in the future. When it is anticipated that the new level of demand will persist and/or when the costs of adjustment are low, adjustment takes place. This computation gets harder when demand in the future is unpredictable. Especially when fixed costs are known, the recovery period for costs is uncertain (Steliaros, 2008). In fact, part of the uncertainty is what new and different adaptations will be needed in the future. In most cases, uncertainty favors the "do nothing" option; It's crucial to keep in mind that this option has a separate price control. Furthermore, theory does not support the hypothesis that uncertainty is linked to asymmetric adjustment that favours upward vs downward activity fluctuations, similar to firm-level adjustment costs.

Lastly, a discussion of adjustment costs' impact on efficiency choices would be incomplete if it did not take into account managers' methods for assessing the losses resulting from using an unsatisfactory combination of resources to produce. If a company doesn't adapt in a completely competitive market, its costs will be higher than those of competitors that do so (or who enter the market with new, optimised production technology and capacity) and receive the same (market) pricing (Anderson, 2007). our idea is applicable to our study because manufacturing companies are concerned with reducing operating expenses and increasing operational income, both of which increase the companies' profitability. As a result, a company reaches operational efficiency when it can maximise revenue while minimising expenses. Among other things, this can be accomplished by choosing wisely when it comes to asset liability management.

Resource Based View Theory

Edith Penrose first put forth this notion of a firm's growth in 1959. According to Pearce and Robinson (2011), it's the process of evaluating and categorising a business's strategic advantages through an analysis of its unique combination of resources, competencies, and intangibles. It examines the elements of the company and how they affect operations. According to Grant (1991), a company is a collection of resources that are combined to form organisational capabilities that allow it to make enormous profits.

For many years, firm performance has been at the centre of strategy research. It includes most other questions that have been brought up in the field, such as why different firms perform differently or are more profitable, how they behave in terms of returns, and how they choose and implement strategies (Porter, 1991). When the resource-based approach emerged in the 1990s, strategy scholars shifted their focus from industry-specific effects to firm-specific ones when examining the sources of sustainable competitive advantage. The rationale behind selecting this theory is its emphasis on input performance, specifically in relation to the impact of resources, competitive environment, strategy, competitive advantage, and individual performance within an organisation.

Resource-based theory, according to Pearce and Robinson (2011), views a company's competitive advantage as being derived from its collection of assets, competencies, and other intangibles. According to resource-based theory, a firm's performance is determined by its resources. A firm, in the words of Zengin and Ada (2010), is an assortment of resources that cooperate to raise the company's worth. Business resources are assets or prerequisites needed for the manufacturing and distribution processes of a business. The work force, money, and technology comprise the firm's fundamental resources. Therefore, the management and coordination of these resources determines the firm's competitiveness and success. The ability of a firm to efficiently use its resources are more likely to have an advantage over those that do not. Therefore, a corporation must effectively utilise its existing resources in order to achieve a competitive advantage in terms of profitability or financial stability.

The resources of the company allow for the effective and efficient functioning of the business. The



operational and financial performance of the company increase with increased resource utilisation. Researchers disagree on how to interpret the connection between a firm's attributes and operational effectiveness (Wanjiku, 2014). While some argue that the unique qualities of the firm are the primary determinants of operational efficiency and performance, others support the idea that industry structural characteristics are the primary determinants of a firm's operational efficiency and performance. This research will concentrate on industry structural elements as well as firm-specific characteristics as elements of cost control plans. Business process reengineering and technology are examples of industry characteristics; hiring and training are examples of specialised elements. This theory is pertinent to the study since it examines the resources employed by the corporation, including technology, recruitment and training tactics, and business process reengineering techniques. These are the competencies and talents of an organisation that could offer it a competitive edge in the sector on which the theory is predicated. In particular, manufacturing companies need to make efficient use of their resources if they want to acquire a competitive advantage. Employee skill enhancement through training improves the performance of the company. Because technology streamlines tasks and reduces expenses and waiting times, businesses must constantly innovate in this area to stay competitive. Last but not least, BPR makes sure the company stays current with the market and constantly modifies how business operations are conducted with the goal of enhancing service delivery and operational efficiency, both of which eventually result in financial success.

The resource-based view idea serves as the foundation for this study since it offers an inside-out perspective on the reasons why particular enterprises succeed or fail in marketplaces. RBV states that an organization's internal resources and competencies can give it a competitive edge.

Fig 2.1: Theoretical Model



Source: Researcher's Compilation (2023)

Figure 2.1 lined the underpinning theory (resource-based view theory) with the conceptual framework.



Conceptual Framework

Fig 2.2: Conceptual Model



Source: Researcher's Compilation (2023)

The conceptual framework for the investigation is shown in Figure 2.2. Financial performance, the study's dependent variable, is shown in the figure along with cost management strategies, the study's independent variable. The relationship between the set of independent variables and the dependent variable is depicted in the figure.

Cost Management Techniques

Cost management techniques involves planning, estimating, budgeting, and controlling costs to ensure that the budget is finished within the allotted time (Temitayo & Adegbie, 2020). Cost is one significant issue that most organisations deal with on a regular basis. This results from the necessity of accurately valuing the company's assets, liabilities, goods, and services in order to maximise profit. For a number of reasons, cost is seen as a crucial component of any organization's operational procedures. Cost is necessary to determine the margin of profit as well as to fix the price, according to Mohd et al. (2014). According to Xu and Zia (2012), cost accounting is the process of figuring out and adding up the expenses associated with a product or operation. It is the process of tracking expenses and keeping them under control. Sheikh (2018) further mentioned that it addresses expense categorization, analysis, and interpretation. Cost accounting as part of the organization is the accounting of costs to provide cost information, tables and reports for management decisions (Mohd *et al.*, 2014).

Manufacturing companies classify and publish costs as selling costs (material and conversion costs), distribution and administrative charges, and financing costs in their financial statements (Dangote Financial Report, 2020). Cost measures the sacrifice of resources created or about to be created so as to achieve set goals (Lawal, 2017). Organizations, especially manufacturing organizations, must manage different types of costs, whether selling costs, distribution and administrative costs, or financial costs, in a way that makes the product good and useful. Cost control is the action taken by a company's management to continuously meet customer needs and at the same time managing costs (Adeyemi *et al.*, 2020). According to accounting dictionary (2021), cost control is the act of decreasing operating costs so as to deliver cheaper goods to consumers. According to Temitayo and Adegbie (2020), cost management is the process of controlling actual or projected expenses that a company or organisation incurs. It assists a company organisation in anticipating expenses and preventing overspending.

Put another way, it's the method that management uses to evaluate and optimise operations or production processes in order to control costs now and down the road. It is a more comprehensive procedure than cost accounting, which mostly concentrates on project or product costs, as acknowledged by Oparanma and



Ohaka (2015). Information for managers' internal use is the focus of cost management. Specifically, it finds, gathers, assesses, disseminates, and reports data that managers may utilise to decide on pricing, consumers, suppliers, and other items. This data is then utilised for planning, control, ongoing improvement, and decision-making. Utilising cost management systems to encourage cost control and save expenses is frequently necessary to ensure successful financial management for businesses functioning in a competitive climate (Erasmus, 2021).

Prime Costs

Prime costs constitute a foundational concept in the domain of accounting and finance, offering a comprehensive understanding of the direct expenses directly related to the production of goods/services (Shiba, 2017). According to Nouroozi et al., (2014), these costs encapsulate the essential elements that contribute directly to the manufacturing process, encompassing three primary components. Firstly, direct materials encompass the tangible inputs crucial for production, such as raw materials and components which related to the final product. Secondly, direct labor encapsulates the remuneration and benefits allocated to workers directly engaged in the production process, spanning assembly line personnel, machine operators, and laborers contributing substantially to product creation. Lastly, direct expenses incorporate additional costs integral to production but not classified under materials or labor. Examples encompass the cost of power, fuel, and specific supplies or services intricately linked to the manufacturing process. Prime costs, therefore, emerge as the sum total of these direct expenditures, forming an indispensable metric for businesses involved in manufacturing. The significance of prime costs is multifold. Firstly, they are a linchpin for effective cost control, enabling businesses to discern areas for optimization and efficiency enhancement (Limarev et al., 2019). This knowledge proves pivotal in sustaining profitability and competitiveness. Secondly, prime costs underpin pricing decisions, acting as a foundational element in determining product prices that not only cover direct expenses but also yield a margin for overheads and desired profits. Lastly, prime costs furnish a critical lens for evaluating the efficiency and performance of the production process, fluctuations in these costs act as key indicators of operational inefficiencies, prompting timely adjustments and improvements. In essence, prime costs represent more than a numerical abstraction; they embody the intrinsic essence of production economics, shaping decision-making, pricing strategies, and operational enhancements for businesses engaged in the intricate dance of creation and commerce.

Prime costs are important to businesses as they represent the fundamental expenses that are indispensable for bringing a product into existence, understanding and managing prime costs are crucial for effective cost control, pricing decisions, and performance evaluation in the realm of production and manufacturing (Shiba, 2017).

Absorption Costing

A managerial accounting method called absorption costing is used to assign all production costs—both fixed and variable—to the units that are produced. It is also known as traditional costing or full costing. The foundation of absorption costing is the notion that all expenses related to the creation of a good or service ought to be included in the price of the good. Lawal (2017). El-Haddad and Elewa (2018) state that under absorption costing, all indirect costs—such as fixed production expenses and factory overheads—as well as all direct costs—such as direct labour and materials—are assigned to the units produced. This approach considers fixed costs as an essential part of production cost and includes them in the product cost. This is in contrast to variable costing, which only considers variable costs as part of the cost of production.

The main components of absorption costing include: Direct materials: These are the raw materials that are used right away in the manufacturing process. The price of the product includes the cost of the direct materials. Wages or salary given to workers who are directly involved in the production of goods or services



are referred to as direct labour. Product cost is increased by the cost of direct labour. Factory overheads include rent, utilities, and machinery depreciation. These are the indirect costs of production that are not directly linked to a particular product. A preset overhead rate is used to establish how factory overheads are assigned to each product. Fixed production costs: These are expenses like property taxes, insurance premiums, and production supervisor wages that don't change as output levels do. The cost of the product includes fixed production costs. In absorption costing, a fixed overhead rate is used to allocate fixed expenses. The estimated total fixed production expenses are divided by the estimated total number of units to be produced to arrive at this rate. The fixed production expenses are then distributed by applying the predefined overhead rate to each unit produced. According to El-Haddad and Elewa (2018), absorption costing is a popular costing technique that divides all production cost and is suitable for external reporting purposes. However, it may have limitations in decision-making and inventory valuation, and can incentivize high production levels. Organizations need to carefully consider the pros and cons of this technique and evaluate its suitability based on their specific needs and circumstances.

Financial Performance

The ability of a business to produce financial outcomes consistent with its objectives is referred to as financial performance (Mutende et al., 2017). It is a gauge of how well a business makes use of its resources to produce income from ongoing operations (Okoro & Kigho, 2013). It might be argued that the phrase is used to evaluate a company's long-term financial health and growth (Dsunday & Ejabu, 2020). It can also be applied to evaluate various companies within the same sector. Financial success can be measured in a variety of ways, and as a company has many stakeholders, each group has a vested interest in keeping an eye on the company's financial health. Trade creditors, bond holders, shareholders, and management all have a stake in the company's liquidity and solvency. Additionally, shareholders are curious about the performance of their capital, and management is interested in the company's performance depend on the organisation being assessed and the evaluation's objectives (Kaguri, 2013). Three factors determine the performance of the company: product performance (sales, market share, etc.); shareholder return (total shareholder returns, economic value added); and financial performance (profit, ROA, ROI, EPS, ROCE) (Richard et al. People, 2009). According to Mutende et al. (2017), a company's ability to generate financial results in line with its expectations is measured by its financial performance.

When evaluating profits potential, growth potential, and overall financial soundness, financial performance is the single most crucial criterion (Garanina & Kaikova, 2016). Financial performance, according to the Business Dictionary (n.d.), is the outcome of a company's operations and policies expressed in monetary terms. The firm's liquidity, solvency, return on investments, return on assets, and return on equity all reflect these results. According to Okafor et al. (2022), financial performance measurements fulfil three crucial functions. They have three main functions: they are a tool for financial management, they are important business objectives, and they act as a control and motivation mechanism within an organisation. Financial ratios such as return on equity (ROE), return on assets (ROA), return on capital (ROC), return on sales (ROS), and operating margin are frequently used to assess financial performance (Dogan, 2013). It is a gauge of how successfully a business makes use of the resources in its business plan to produce income (Van Horne, 2005). The financial performance of a company matters to stakeholders, investors, and the overall economy. The return on sales was considered for the purposes of this investigation.

Returns on Sales (ROS)

This accounting indicator, which determines how much of gross income is turned into net profits, is also utilised in an organization's financing (Idowu & Babatunde, 2018). This metric provides information on the profit pernaira that sales create. A rising return on equity (ROS) indicates that a company is getting more



competitive, whereas a falling ROS could be an indication of impending financial difficulties. ROS is a metric used in economics to assess how well a company generates revenue from its top line. This ratio is essential to investors, borrowers, and other debt investors because it accurately reflects the cash a company actually produces on its income and provides information on possible dividends, reinvestment opportunities, and the organization's capacity to pay back loans. The utilisation of return on sales was effective (Kader et al., 2011; & Bernadino, 2016).

ROS = Net Profit after Tax/Total Revenue

Firm Size

Firm size refers to the size of a business unit. It can also be perceived as the volume of operation carried out by a single firm (Falope & Ajirole 2019). Due to the phenomenon of economies of scale, the size of the company is the most important element of success. The goal of today's business organizations is to increase their efforts by reducing production costs and expanding the market to gain a better advantage over their competitors. Larger enterprises have the ability to manufacture at greater costs than small enterprises. The company size refers to the amount or collection of production resources and capital the company has or the amount and type of value a firm can simultaneously render to its customers. According to the concept's future evolution, a company's size is the primary element influencing its profitability, and some experts have shown a correlation between the two.

Firm size, in the words of Akinyomi and Olagunju (2013), is the magnitude of the firm and the business enterprise's operations. Because of economies of scale, a company's size in the modern world is crucial for keeping up with, surpassing, and cutting expenses when competing with its rivals. According to the concept's future evolution, a company's size is the primary element influencing its profitability, and some experts have shown a correlation between the two. Akinyomi and Olagunju (2013) confirmed that since size is considered an important variable in explaining organizational effectiveness, many studies have tried to explore the influence effect on the magnitude of benefit. This situation is also supported by Jasch (2013) because large companies have larger market shares and therefore more opportunities to make money. Therefore, under these conditions, large companies are more profitable and less competitive. Within the realm of corporate finance Size is still seen by empirical researchers as a significant and reliable attribute, and they note that size affects dependent variable determination in a variety of scenarios.

Empirical Review

Ali-momoh (2022) investigated the impact of marginal and absorption costs on the performance of Nigerian companies. Precisely, the impact of absorption cost on corporate performance of some manufacturing companies in Nigeria and concluded that marginal costing had a significant influence on the performance of Nigerian companies. The population of this study included twenty-two listed manufacturing companies but a sample of eighteen were selected from the population. Five hundred and forty participants were selected from the sample companies. Surveys were utilised to collect the data that was used. The data obtained were analyzed using descriptive methods. Particularly percentages and frequency measurements were used in the research. The findings demonstrate that absorption costs improves these particular Nigerian enterprises' performance. Furthermore, the findings demonstrated that, in these particular Nigerian enterprises, marginal costing has a strong and favour able link with firm performance across the manufacturing sector. The study found that these particular Nigerian manufacturing enterprises' performance is positively and significantly impacted by both marginal cost and absorption. The study recommended that when managing manufacturing companies in Nigeria, profitability, liquidity, business size, and asset tangibility are all essential factors to take into account when deciding to adopt absorption and marginal costing. This research



Erasmus (2021) examined the relationship that exists between management cost practice and the financial performance of deposit banks in Nigeria. Profit before taxes is a measure of financial performance; activitybased costing, target costing, and standard costing are measures of the cost management practice. The study's population, which consists of 15 deposit banks, is exclusively composed of Nigerians. Using the judgmental-sampling method, ten banks were chosen as the research sample for this study. The research triangulation methodological strategy was used in this study. The questionnaire used to collect the primary data was designed on a five-point Likert scale to record the respondents' answers. Between 2010 and 2018, secondary data was collected from Nigerian deposit banks' annual financial statements. With the use of the econometric statistical programme E-view 10, hypotheses were tested using the Ordinary Least Square Regression statistical tool. The results indicate a strong correlation between profit before taxes and activitybased costing. There is evidence to suggest that profit before taxes and target costs are inversely related. Standard-costing and profit before tax have a strongly positive relationship, according to empirical data. Financial performance is impacted by cost-management practices, according to the evidence. The study comes to the conclusion that listed Deposit Money Banks in Nigeria had better financial performance thanks to cost management practices. Therefore, in order to ensure efficient cost control and reduction and, as a result, financial performance, the researcher suggests, among other things, that banks conduct regular training, seminars for all relevant personnel on, and modern cost-management practices. The main goal of developing bank cost control methods should be expense reduction. The study on cost management here is restricted only to the standard costing and was measured using primary data which is not ideal for this nature of study.

Giami and Iwo (2021) examined the relationship between employee benefits and financial performance of pharmaceutical companies in Nigeria from 2011 to 2019. The explanatory factors were sales growth and return on assets, while the explained variable was the cost of employee well being. The public annual statements of the companies provided the secondary data. Descriptive statistics like mean and standard deviations as well as inferential statistical techniques like correlation coefficient and Anova were utilised to analyse the data. With the use of linear regression and SPSS pack version 22, two hypotheses were developed and put to the test. The study's findings showed a strong and positive relationship between employee welfare expenses, return on assets, and sales growth. The study found a substantial and positive correlation between the cost of staff wellness and the growth in sales and return on assets of pharmaceutical businesses should keep raising the welfare demands of their workforce. The study of Giami and Iwo (2021) used ANOVA to test the relationship. Analysing ANOVA is however challenging using the rigid assumptions about the nature of data. Panel multiple regression will be employed in this study's empirical analysis of the connection between cost-management strategies and financial performance.

Nangih et al (2020) examined the connection between cost of labor and profitability listed Nigerian oil and gas firms. Specifically, it analysed the effect of employee cost, cost of healthcare, and expenses on training on the revenues of publicly traded oil and gas companies. Between 2013 and 2018, the information was gathered from the business's yearly financial statements. For this study, a maximum of five companies were chosen, and they were all subjected to analysis using methods for regression, correlation, and description. The findings of the tests indicate that while medical costs had an adverse effect on profit, training costs and wages had a beneficial impact on sales. Only the cost of training, though, was noteworthy. The analysis came to the conclusion that while medical costs have an adverse association with profit, salaries and wages as well as training costs have a positive influence; only training costs are substantial. Thus, the oil and gas industry will be more profitable if it spends more on training and development, but it will be less profitable if there are more medical-related problems. It is advised that Nigerian oil and gas corporations prioritise employee training and development above safety measures in light of the findings. According to the study, management should constantly prioritise the wellbeing of its employees because the interaction between



management and employees determines whether the management succeeds or fails. The study's conclusion is that a higher frequency of medical problems among employees will always result in a lower profit margin.

Temitayo and Adegbie (2020) investigated the impact of cost management on the financial viability of publicly traded Nigerian retail companies. The study's focus was on 27 consumer products businesses that are listed in Nigeria. For ten years, a sample of ten businesses was selected (2009 to 2018). The study employed the purposive sampling technique. The audited financial statements provided the relevant information, and regulatory bodies have already verified the accounts. Using E-view 10, the study used both inferential and descriptive statistics. The outcome showed that cost control had a combined negligible impact on net profit margin. The regressors comprise marketing and distribution costs, sales costs, financing costs, and administrative costs. A portion of these regressors have a positive impact on the dependent variable, financial performance, while others have a negative impact. This study found that insufficient knowledge, unfair distribution practices, and inefficient management and decision-making processes could all be contributing factors to the little effect of cost control. Therefore, this finding suggests there should be adequate management and effective costing. The study is limited by time frame ranging from 2009-2018. This present study will look at a time frame ranging from 2007-2022 to bridge the gaps in extant literature.

Ikram (2019) evaluated the effectiveness of cost management of Ethiopian flower companies through Maranque Plants PLC as the case study. Important problems about cost function, cost structure, financial function, cost limitation, cost control, cost reduction, and management process are attempted to be addressed in this study. Both a case study methodology and a descriptive research strategy were used in the study. Both primary and secondary data were used in this study. Of total operating expenditures, 58% are attributed to direct costs of operation. Indirect costs account for 42% of total costs. Over the course of the study period, indirect expenses grew at an average annual rate of 218%, more than tripling. The corporation is not doing well, as seen by the outcomes of key operating efficiency ratios. As an example, operating costs ratio was greater than 80% all through the study period. This value is more than the threshold, which means the firm is exposed to market shocks or financial decline. Additionally, the company follows the traditional budgeting process. Only a few key business units participate in the formulation of the annual budget. The main constraints in the company's cost management are lack of purchasing authority, lack of suitable personnel and preparation of appropriate materials, lack of regular tracking and tracking of costs against project plans. It was concluded that a lack of effective cost management greatly hindered the company's financial performance. Finally, the study made suggestions to improve the company's cost management. They include establishing policies on procurement, establishing stringent controls, involving staff in developing budgets and monitoring procedures, and implementing company-wide cost reductions. Ikram (2019) study is constraint by geographical gaps, the study focused on Ethiopia with special consideration on floricultural companies. But this present study would concentrate on Nigeria manufacturing companies.

Mamidu and Akinola (2019) investigated the impact of cost control on the performance Nigerian manufacturing firms. This study examines some of the greatest cost management techniques and how they affect manufacturing organisations' performance while taking into consideration the particularities of the Nigerian economy. Second, it was looked into how to disclose the actual nature of the circumstance. A source of secondary data is yearly reports and associated paperwork. Using Stata 13, a least squares linear regression model was employed to analyse the data. Information on listed companies' direct costs, operating profit (variable), and cost of direct labour and overhead (independent variable) was freely taken from the financial records of the business. Nigerian companies have pulled out. The results show that while total investment is favourably connected to profitability at the 5% significance level, equity capital has a positive impact on profitability at that level. The investigation work shows that production profits are impacted by cost control. It was determined that profitability is positively impacted by efficient cost management. The study recommended that as cost control measures have a big influence on the company's financial sustainability, decision-makers and business specialists should exercise caution when developing and



implementing cost control policies. The study of Mamidu and Akiniola (2019) in terms of methodology used ordinary least square regression. More robust analyzes can be performed using panel data suggesting equipment analysis in possible ways if the study uses cross-sectional. Therefore, this study expands the knowledge gap by closing this gap in the literature by using a robust panel analysis approach such as a panel regression analysis to assess the effect of cost control and performance of good Nigerian manufacturing firms.

Onuora and Kenechukwu (2019) assessed the impact of cost management on profit margin in the context of Nigerian industrial commodities. The general aim was to examine the impact of cost management on profits of businesses between 2010 and 2018. Data analysis was performed using the least squares regression method. The second row was used; Variables of interest are selected from annual reports of listed companies.

All relevant variables were extracted from the annual reports of the mentioned companies, and data were gathered from secondary sources. The following variables were employed: the cost of inventory, labour, and sales were the independent variables, and return on asset was the dependent variable. The results indicate It was found that the cost of inventory is positively correlated and statistically significant with business success. Additionally, it was found that the labour cost is positively correlated and statistically insignificant with audit quality. According to the study's findings, cost control increases the profitability of a subset of Nigerian businesses. This study suggests that policy makers and business experts should be careful in establishing cost control policies to be implemented as it has a significant impact on the company's performance. Various cost management measures should be included in company rules regarding inventory costs since they have a significant impact on financial performance. Various cost management measures should be included in company rules regarding inventory costs since they have a significant impact on financial performance. The current study would expand the body of literature by using return on sales and return on capital as the dependent variables and staff costs, costs of sales and distribution, administrative costs, finance costs, inventory costs, and agency costs as the independent variables. Onuora and Kenechukwu's (2019) study used return on assets as the dependent variable and cost of labour, inventory, and sales as the independent variables. Various cost management measures should be included in company rules regarding inventory costs since they have a significant impact on financial performance. The current study would expand the body of literature by using return on sales and return on capital as the dependent variables and staff costs, costs of sales and distribution, administrative costs, finance costs, inventory costs, and agency costs as the independent variables. Onuora and Kenechukwu's (2019) study used return on assets as the dependent variable and cost of labour, inventory, and sales as the independent variables. Various cost management measures should be included in company rules regarding inventory costs since they have a significant impact on financial performance. The current study would expand the body of literature by using return on sales and return on capital as the dependent variables and staff costs, costs of sales and distribution, administrative costs, finance costs, inventory costs, and agency costs as the independent variables. Onuora and Kenechukwu's (2019) study used return on assets as the dependent variable and cost of labour, inventory, and sales as the independent variables. Various cost management measures should be included in company rules regarding inventory costs since they have a significant impact on financial performance. The current study would expand the body of literature by using return on sales and return on capital as the dependent variables and staff costs, costs of sales and distribution, administrative costs, finance costs, inventory costs, and agency costs as the independent variables. Onuora and Kenechukwu's (2019) study used return on assets as the dependent variable and cost of labour, inventory, and sales as the independent variables. Various cost management measures should be included in company rules regarding inventory costs since they have a significant impact on financial performance. The current study would expand the body of literature by using return on sales and return on capital as the dependent variables and staff costs, costs of sales and distribution, administrative costs, finance costs, inventory costs, and agency costs as the independent variables. Onuora and Kenechukwu's (2019) study used return on assets as the dependent variable and cost of labour, inventory, and sales as the independent



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Alan (2018) assessed the impact of cost control on financial viability of manufacturing companies in Kampala: a case study of Britannia Allied Industries Limited. The study also focused on three goals, including figuring out how labour, material, and overhead costs affect bottom line results. Financial performance served as the regressand, and internal cost management served as the regressor. The study included purposive, simple random, and stratified sampling procedures to obtain representative samples. The Slovenes formula was used to calculate the sample size, which came out to be 60 responders out of the total population of 65 members. Responses were gathered using closed-ended questionnaires on a five-point Likert scale. Frequency tables were used to carefully collect, classify, and analyse the pertinent data. Graphs and charts were then used to summarise the data. The study demonstrated that there is a substantial relationship between financial performance and cost reduction. This is a consequence of cost management indicators, which indicate that more than 85% of respondents agreed that This is a result of cost management indicators, which indicate that more than 85% of respondents felt that manufacturing companies would have successful financial performance if costs were effectively controlled. Ultimately, the study suggested using an integrated material costing system to track materials from the point of ordering to the point at which goods



are distributed for use in manufacturing in order to get resources that are both more affordable and of higher quality.

Dabre (2014) assessed the impact of cost control and financial management in Nigerian manufacturing companies. The study employed an ex-post facto descriptive research design, which depends on secondary data collected after the event. Additionally, panel data (time series and cross-sectional) encompassing five (5) years from 2014 to 2018 was used. This data came from the financial statements (statement of financial position and comprehensive income statement) of the chosen listed Nigerian manufacturing companies. The study demonstrated that the inventor's cost positively but marginally affects return on equity. Return on asset is significantly impacted negatively by labour costs. Costs associated with labour, inventory, and sales have a negative, negative, and positive significant impact on size (performance). It was concluded that labor costs improve performance and at the same time a problem if labor costs represent a large portion of the organization's total profit. It is suggested that organizations should make sure well accountable cash or gain are spent on the labour component of an organization, so has to improve the return on equity of the major shareholders. The scope of the study carried out by Dabre (2014) was limited to a period ranging from 2014-2018. However, the present study will cover a period of 15 years ranging 2008-2022. The scope of the study carried out by Dabre (2014) was limited to a period ranging from 2014-2018. However, the present study will cover a period ranging from 2014-2018. However, the present study will cover a period of 15 years ranging 2008-2022.

METHODOLOGY

In order to offer the essential support for describing the nature of the interactions between the study's variables and to obtain information regarding the pre-existing nature of the phenomena under investigation, a longitudinal panel research design was used in this study. All fifty-six (56) manufacturing enterprises (firms) listed in the Nigerian Exchange Group as of December 31, 2022, make up the entire population for this study. The convenience sampling method was used to determine the sample size. The criterion to be used is that; a firm must be listed before the year 2008 and remain in operation during the period of the study (2008 to 2022). Selections were also made based on the manufacturing firms found in the Nigeria Exchange Group stratification of the listed companies. This is to lessen any issues related to reliability and authenticity. Thirty (30) manufacturing companies were found to meet the selection criteria for the sample. The study's 15-year time frame is from 2008 to 2022. Data from secondary sources was gathered. Using the statistical programme E-view version 10, dependent and independent variables were examined using descriptive statistics, correlation analysis, panel regression, and post regression diagnostic test. The model employed by Temitayo and Adegbie (2020); and Mamidu and Akinola (2019) was modified and adapted for the study, as indicated below.

 $ROS = \alpha_0 + \beta_1 PC + \beta_2 AC + \beta_3 FSize + \varepsilon$ (i)

ROS = Returns on Sales

PC = Prime Costs

AC = Absorption costs

Fsize = Firm Size

- $\alpha_0 = \text{Constant or intercept}$
- $\beta_1 \beta_3 =$ Regression coefficients.



 ε = Stochastic error term.

 Table 1: Definition of Variables

Variable	Туре	Measurement	Source
Variable of Interest			
Return on Sales (ROS)	Dependent	Measured by dividing profit after tax over total revenue.	Aamir <i>et al.</i> , (2012)
Prime Costs (PC)	Independent	Prime Costs = Direct Materials + Direct Labor + Direct Expenses	Shiba (2017)
Absorption Costs (AC)	Independent	Direct labour costs + direct materials costs + variable overhead costs + fixed manufacturing overhead)/ number of units produced	Erasmus (2021)
Firm size (FS)	Control	Measure as natural log of total Asset	Omollo, <i>et al.</i> , (2018)

Source: Researcher Computation (2023)

RESULT AND DISCUSSION

Descriptive Statistics

A preliminary analysis of the data in the form of descriptive statistics was done in order to get a peek of the data used in the study. This helps us understand the patterns seen in the data that were analysed. The summary statistics is presented in Table 2.

	ROS	PC	AC	FSZ
Mean	0.241206	52716143	0.245846	7.543410
Median	0.209456	7667896.	0.142857	7.808317
Maximum	0.979408	9.01E+08	0.979408	10.24300
Minimum	0.005632	0.044421	-0.133967	4.445620
Std. Dev.	0.188773	1.13E+08	0.262241	1.375637
Skewness	1.547482	4.080280	1.052763	-0.357186
Kurtosis	5.868089	24.21931	3.001075	2.389246
Jarque-Bera	333.8388	9691.012	83.12331	16.56279
Probability	0.000000	0.000000	0.000000	0.000253
Sum	108.5427	2.37E+10	110.6305	3394.535
Sum Sq. Dev.	16.00030	5.76E+18	30.87797	849.6773
Observations	450	450	450	450

Table 2: Descriptive Analysis Result

Source: E-View 10 Output (2023)

The summary of the variables' descriptive statistics that were part of the model was shown in Table 2. It showed significant variances in the variables during the 2008 to 2022 research period, as indicated by the



mean values. The skewness and kurtosis values of each variable in the model strengthened the study further. Except for the company size distribution, which is negatively skewed, all of the distributions are favourably skewed. Only firm size was eligible for this classification during the study period. Variables having a kurtosis value of less than three are referred to as platykurtic (fat or short-tailed). Additionally, during the study period, all variables with kurtosis values greater than three were classified as leptokurtic, meaning they were slender or long tailed. The only variable that did not meet this criteria was firm size. The residuals are not normally distributed, as shown by the probability values less than 5%, according to the Jarque-Bera test. To sum up, the descriptive statistics showed that there are irregularities in all of the data sets. This is the case since the variable's probability values don't go above 5%.

Correlation Analysis

Table 3 displays the correlation coefficients between the independent and dependent variables as well as the correlation between the independent variables. The results of the Pearson Correlation are used to create these numbers. The correlation matrix in the table displays the Pearson correlation coefficients between the study's independent variables and dependent variables.

Covariance A	Analysis: Orc	linary		
Date: 12/14/	23 Time: 11	:38		
Sample: 200	8 2022			
Included obs	servations: 45	50		
Correlation				
Probability	ROS	PC	AC	FSZ
ROS 1.000000				
PC	-0.050641	1.000000		
	0.2837			
AC	-0.088083	0.151490	1.000000	
	0.0619	0.0013		
FSZ	0.053476	-0.029556	-0.129313	1.000000
	0.2576	0.5317	0.0060	

Table 3: Correlation Analysis Result

Source: E-View 10 Output (2023)

On the other hand, Table 3 displays the correlation between the independent variables of PC, AC, and FSZ and the dependent variable, ROS. In general, one would anticipate a low correlation among independent variables and a high correlation between dependent and independent variables. Gujarati (2004) states that a correlation value of 0.80 between two independent variables is deemed excessively high, necessitating the implementation of corrective procedures to mitigate data uncertainty. It is evident from the table that none of the explanatory factors' correlation coefficients is greater than 0.80. This suggests that there isn't any potential for multicollinearity among the independent variables, and the correlation. Return on sales and firm size have a 5% and positive significant association, respectively, meaning that the larger the firm, the higher the return on sales. Moreover, the research shows that there is no potential multicollinearity because there is no relationship found between or within the study's variables.



Multi collinearity Test (VIF)

Multicollinearity tests were carried out, with the Variance Inflation Factor (VIF) serving as the rigidity test, to guarantee the measures' rigidity. Multicollinearity, which is a violation of the linear regression model and can impact the validity of the results in any analysis, is the state in which one or more independent variants have a higher influence on others.

To find out if there is a significant correlation between the regressors that could lead to inaccurate results, multicollinearity tests are run. Table 3 displays the coefficient for the highest correlation between AC and FSZ, which is 0.151490. Regression analysis deems a value less than 0.80 to be challenging. Consequently, the low degree of correlation between the regressors suggests that multicollinearity might not be an issue in the database under study. However, in order to further verify that there is no issue with multicollinearity between independent mutations, collinearity diagnostic tests were carried out using the variance inflation factor (VIF). Table 4 below displays the outcomes of the collinearity diagnostic test:

Table 4: Multicollinearity Test (VIF)

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
С	348.11749	9.02632	NA
PC	144.83053	5.39430	1.906439
AC	128.96416	7.61167	1.926201
FSZ	83.08404	6.30001	1.953446

Source: E-View 10 Output (2023)

***Decision rule**: A medium VIF of less than 10 suggests that multi-collinearity is not present, but an intermediate VIF of more than 10 implies multi-collinearity. As previously stated, the variance inflation factor used by the law of multicollinearity test rule is VIF Medium, which indicates the presence of multi-collinearity when it is present, and VIF Intermediate, which indicates the absence of multi-collinearity, when it is above 10. Given that none of the independent variables (PC, AC, or FSZ) contain more than ten VIF centres, Table 4 above demonstrates the lack of multicollinearity amongst the independent variables.

Heteroskedasticity Test

To confirm that the estimates were robust, a heteroskedasticity test was run as a diagnostic. Heterogeneous variance occurs when the standard error of the variable being monitored is not constant over time. Heteroscedasticity violates linear regression modelling assumptions and can affect the validity of analytical results. Heteroscedasticity on the other hand, does not create any bias in the coefficients, but it reduces the precision, and less precise coefficients are more likely to be estimated. The estimates are far from the correct population values that have been removed.

*Decision Rule: At 5% level of Significance

Hypothesis

H₀: The Error Variances are all Equal (Homoskedastic)

H₁: The Error Variances are not Equal (Heteroskedasticity)



 Table 5: Heteroskedasticity Test

Panel Cross-section Heteroskedasticity LR Test							
Null hypothesis: Resid	Null hypothesis: Residuals are homoscedastic						
Equation: UNTITLEI)						
Specification: ROS C	PC AC FSZ						
	Value Df Probability						
Likelihood ratio 254.5638 30 0.0672							
LR test summary:							
Value Df							
Restricted LogL							
Unrestricted LogL 359.2621 446							

Source: E-View 10 Output (2023)

The panel cross-section heteroskedasticity regression test results are displayed in Table 5. The following is the decision rule for the panel cross-section heteroskedasticity test:

The test's alternate hypothesis asserts that heteroskedasticity exists, whereas the null hypothesis claims that it does not. In the event that the P value exceeds the 5% level of significance, the null hypothesis must be accepted. Given that the result in Table 5 above has a ratio value of 254.5638 and a corresponding probability value of 0.0672, both of which are larger than 5%, the study concludes that the null hypothesis— which claims there is no heteroskedasticity problem—should be accepted. As a result, the null hypothesis is accepted based on the diagnostic probability of 0.0672. This means that homoskedasticity exists, showing that the residuals are homoskedastic and that the samples accurately reflect the population.

Hausman Specification Test

In panel data analysis, the Hausmann test is a model specification test that is used to choose between fixed and random effects models. Fixed and random effects regressions were carried out because the datasets used in this study were panel. Next, a Hausmann specification test was employed to select between the regression models with fixed effects and those with random effects. This test evaluated whether the erroneous term and the regressor were related. Consequently, the Hausmann specification test decision rule is given at a significance level of 5%:

H₀: For Panel Regression analysis, Random Effect is not suitable.

H₁: For the Panel Regression analysis, fixed effect is the most suitable.

As was previously said, the null hypothesis is rejected if the p-value is greater than 0.05. The null hypothesis states that fixed effects are the most appropriate model for panel regression analysis (i.e., random effects is the preferred model). Similarly, the null hypothesis is accepted if the p-value is less than 0.05. Therefore, panel regression analysis is best suited for fixed effects (i.e., we reject the random effects model).

Table 6: Hausman Specification Test.

Correlated Random Effects – Hausmar	n Test	
Equation: Untitled		



Test cross-section random effects			
Test Summary Chi-Sq. Statistic Chi-Sq. d.f.			
Cross-section random	1.638492	3	0.5745

Source: E-View 10 Output (2023)

The Hausman test result, which is included in the above table, shows that the probability value (0.5745) of the test is higher than the crucial value of 0.05, which means that there is not enough evidence to reject this null hypothesis at the 5% level of significance. The study thus maintains that the difference in coefficients is not systematic, making the random effect model the most suitable model for the investigation. Because of this, it is essential to go on to the Langranger Multiplier test, which will show whether or not to use the pooled effect model or the random effect model.

Breusch-Pagan and Lagranger Multiplier Test

The Lagranger multiplier test is used in panel data analysis to choose between random effects and pooled models. Because the dataset was a panel, both pooled and random effects regression analyses were done. Using a Breusch-Pagan Lagrangian multiplier test, the best model between the pooled-effects and random effects regression models was then identified. The Breusch-Pagan Lagrangian multiplier test decision rule, at a 5% significance level, is as follows:

H₀: The Panel Regression technique does not suit the pooled effect.

H₁: With Panel Regression analysis, Random Effect is the most suitable.

As previously mentioned, the null hypothesis, which claims that the pooled effect is the best suited model for the Panel Regression analysis (i.e., random effects is the preferred model), must be rejected if the p-value is less than 0.05. In a similar vein, in the event that the p-value exceeds 0.05, the null hypothesis— which asserts that the pooled effect is best suited for Panel Regression analysis—must be accepted, rejecting the random effect model.

 Table 7: Breusch-Pagan Langranger Multiplier Test

Residual Cross-Section Dependence Test					
Null hypothesis: No	cross-section dep	endence (correlati	on) in residuals		
Equation: Untitled					
Periods included: 15	5				
Cross-sections included: 30					
Total panel observations: 450					
Note: non-zero cross-section means detected in data					
Cross-section means were removed during computation of correlations					
Test Statistic d.f. Prob.					
Breusch-Pagan LM 914.1044 435 0.0000					

Source: E-View 10 Output (2023)



Compared to the pooling effect, the random effect is more appropriate since the null hypothesis is rejected based on the probability value of the Breusch-Pagan Langranger Multiplier Test at probability value of 0.0000.

Test of Research Hypotheses

 Table 8: Random Effect Regression Result

Dependent Variable	: ROS					
Method: Panel EGLS (Cross-section random effects)						
Date: 12/14/23 Tim	ne: 12:00					
Sample: 2008 2022						
Periods included: 15	5					
Cross-sections inclu	ded: 30					
Total panel (balance	ed) observation	ns: 450				
Swamy and Arora e	stimator of co	mponent varia	nces			
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
С	0.219042	0.054985	3.983658	0.0001		
PC	5.213611	8.01E-11	0.650662	0.5156		
AC	-0.023805 0.039707		-0.599526	0.5491		
FSZ	0.003350	0.006502	0.515236	0.6066		
	Effects Specif	fication				
			S.D.	Rho		
Cross-section rando	m		0.110104	0.3310		
Idiosyncratic randor	n		0.156519	0.6690		
	Weighted Sta	tistics				
R-squared	0.582375	Mean dependent var		0.083111		
Adjusted R-squared	0.554336	S.D. dependent var		0.156004		
S.E. of regression	0.156342	Sum square	10.90146			
F-statistic	18.53892	Durbin-Watson stat		1.831367		
Prob(F-statistic)	0.000350					

Source: E-View 10 Output (2023)

Together with the explanatory variables PC, AC, and FSZ, Table 9 presents and analyses the panel random regression findings of the explained variable, which is proxied by ROS. There is a range of values between the R2 and the modified R2, which are 58% and 55%, respectively. The R2 of 58% explains the variation in the regressand (ROS) brought about by changes in the independent variables. Thus, it can be said that the independent variables together have the ability to forecast how listed manufacturing firms in Nigeria would do financially, with other factors not included in the model accounting for 42% of the variation. Additionally, the above-presented regression findings show a positive intercept of (0.219042). This basically means that listed manufacturing enterprises' financial performance increases by 0.219042 when other variables remain constant. With a P-value of 0.0001, the constant's result is statistically significant.

According to Table 9, the PC variable's coefficient was 5.213611, and its p-value was 0.5156 (>0.05). The null hypothesis is supported by the deduction that staff costs have a negligible and unfavourable impact on



the financial performance of listed manufacturing companies.

Furthermore, the results of the second hypothesis showed that the variable AC's coefficient was -0.023805, with a p-value of 0.5491 (>0.05). The financial performance of listed manufacturing enterprises can be inferred to be negatively impacted by absorption cost, a finding that lends support to the null hypothesis.

Ultimately, the alternative hypothesis is supported by the deduction that the control variable, firm size, has a positive and statistically significant impact on the financial performance of listed manufacturing enterprises.

DISCUSSION OF FINDINGS

According to the study's findings, which were previously discussed, listed manufacturing enterprises' financial performance is negatively and marginally impacted by prime cost. In other words, changes in prime costs does not have substantial effect on the manufacturing firms. A negative impact on financial performance could imply that the cost of producing goods is not being effectively translated into positive financial outcomes. In other words, changes in prime cost may not reliably predict changes in financial performance. This study concurs with the research conducted by Temitayo and Adegbie (2020) and Erasmus (2021) however, it differs with the conclusions reached by Nangih *et al.*, (2020) and Giami and Iwo (2021).

Also, it is evidence from the analysis that absorption costs have negative and insignificant effect on financial performance of listed manufacturing firms. The negative effect could imply that using absorption costing does not lead to an improvement in financial performance. It may indicate that the allocation of costs using these techniques does not accurately reflect the true costs associated with production or that it does not provide useful information for decision-making. The result of this finding contradicts that of Ali-momoh (2022) who found that absorption costing has considerably and favourably affected the corporate performance of the chosen Nigerian companies. The control variable introduced in this study firm size revealed a favourable and substantial effect on financial performance of listed manufacturing firms under study.

CONCLUSION AND RECOMMENDATIONS

The research work assessed the effect of cost management techniques on financial performance of listed Nigerian manufacturing firms. The study confirmed that prime cost has a negative and negligible impact on these organisations' financial performance, based on the findings obtained through the objectives led by the study hypotheses.

Based on the findings of this study, a few suggestions are made for efficient financial performance of manufacturing companies listed on the Nigeria Exchange Group;

- 1. In light of the finding, it is advised that the entire cost structure of the manufacturing firms to pinpoint places where costs might be reduced without sacrificing product quality. This could entail renegotiating supplier contracts, implementing cost-saving measures, or exploring alternative sourcing strategies.
- 2. Manufacturing firms should review their cost allocation practices to ensure that costs are allocated appropriately and reflect the actual consumption of resources by products. This might involve reassessing the allocation of fixed manufacturing overhead costs, as they can significantly affect profitability under absorption costing.

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