



Material Management And Organizational Productivity Of Breweries Industry South-East In Nigeria

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ABSTRACT

This work investigated the effect of material management and organizational productivity in breweries industry South-East in Nigeria. The study aims to examine the effect of material control and organizational productivity of brewer industry and to examine the relationship between material planning strategy and organizational productivity of brewer industry South-East in Nigeria. Relevant conceptual theoretical and empirical literature was reviewed. The study was anchored on Inventory Management Theory. Descriptive survey research design was adopted. The study was carried out in South-East, Nigeria. The population Sample size calculation was employed to determine the sample size of 328. The instrument used for the study was questionnaire. Face and content validity was adopted while, test re-test and Cronbach Alpha method were carried out to achieve reliability of the instrument. Simple percentage analysis was employed to answer the research questions and Multiple Regression analysis was used in testing the hypotheses. Statistical package for social sciences (SPSS) version 21 was employed to run the test. Results showed that material control has a significant positive influence on organizational productivity in Nigeria brewer industries South-East. Material planning strategy has a positive significant effect on organizational productivity in Nigeria brewer South-East. The study concludes that material management positive significant effect on organizational productivity in Nigeria brewer South-East. The study recommended that manufacturing firms develop a policy framework to facilitate faster implementation material control systems in Nigeria brewer so as to excel and guarantee its future, hence improving organizational productivity. Nigeria breweries in Nigeria should increase their resource commitment to staff training and Research and Development in material planning strategy so as to develop the necessary skills, update their knowledge, and enhance organizational productivity

Keywords: Material Control, Material Planning Strategy, Organizational Productivity

INTRODUCTION

In the current exceedingly aggressive commercial environment, the weight on firms to discover better approaches to convey value to their clients is becoming ever challenging. The expanding requirement for industry to offer items in a worldwide market based on cost and quality has generated the need to implement more productive warehousing approach. Material management has come to be perceived as an unmistakable crucial with the operation of large-scale manufacturing firms. Material management comes before processing of completed products held for distribution to customers (Coyle, Bardi, & Langely 2014). Material management appears to be essential hubs in a supply chain network because it perform an important functions that help in the development of materials, management items, dismissing vehicle loads, making stock keeping unit combinations and gathering materials for shipments purposes (Langevin & Riopel 2015).

Materials management includes all activities in the flow of materials from the supplier to the consumer. Such activities include physical supply, operations planning and control, and physical distribution (Banjoko, 2000). Other terms sometimes used in this area are business logistics and supply chain management. Often, the emphasis in business logistics is on transportation and distribution systems with little concern for what occurs in the factory. Materials Management is a tool to optimize performance in meeting customer service requirements at the same time adding to profitability by minimizing costs and making the best use of available resources. The basic objective of Materials Management as explained by Jacobs, Chase, and Aquilano (2009) is to ensure that the right item is bought and made available to the manufacturing operations at the right time, at the right place and at the lowest possible cost. They stressed that without adequate planning for materials resources, the overall performance of an organization may be crippled.

Nigeria manufacturing firms have understood the advantages of embracing great materials administration and are taking keen interest regarding materials administration since survival of any firm relies upon how well their expenses are overseen (Ondieki, 2014). Nevertheless, most Nigeria firms are not applying refined methods of materials administration in comparison to resources spent on acquisition and maintenance of materials in various firms. The issues experienced in material administration include absence of adaptability, entrusting a great deal of delicate material exercises to one office and absence of all around coordinated database to help data stream on materials (Wanjogu, Iravo & Arani, 2015). The various types of materials to be managed in any organization include purchased materials, work-in-process (WIP) materials and finished goods (Banjoko, 2000). Ogbadu (2009) identified basic price, purchasing costs, inventory carrying cost, transportation cost, materials handling cost, office cost, packing cost, marketing cost, obsolescence and wastages as the various costs involved in these materials. Thus, the management of these materials so as to reduce the costs associated is what the study refers to as Materials Management. Previous Researches (Whybark and William, 1986; Evan *et al.*, 1987; Ramakrishna, 2005; Ogbadu, 2009; Ondiek, 2009) have shown that materials account for more than fifty percent of the annual turnover in the manufacturing firms. This shows clearly that priority should be given to management of materials in manufacturing firms to avoid unnecessary costs. Thus, Materials Management should no longer be viewed as a drain-pipe, but as a serious stabilizing and economic growth potential factor. Unfortunately, few studies exist yet on the effect of Materials Management on the productivity of manufacturing firms for a developing economy as Nigeria. This study intends to fill this gap.

Statement of the Problems

The present state of the breweries industry in Nigeria reflects various problems ranging from delays in project execution/delivery, substandard work, disputes, to cost and time overrun as a result of material shortage and wastages on production, theft and displacement of materials on sites, as well as poor accounting and security system of the concerned sites/firms (Adafin, 2011). According to Dahiru (2010), lack of materials not only causes delays, but a consequent decrease in productivity and resulting to cost overruns. This is no doubt lack of effective material management is one of the major cause of this problem. Failure of the manager to make available materials need could lead to delay. Non-compliance strictly with material requirement planning of quantities, schedule of materials, specifications and breweries programme in material stock control practice is another contributing factor which tends gradually to decrease profitability of a company also often leads to extension of time respectively, and hence no proper material stock control practice (Inyang Udoh, 2002). Dey (2015) noted that the rate at which materials are being wasted due to improper management is becoming unbearable to the company due to its effect on their profit margin and proper usage of material to achieve quality job been done through various techniques. Material management practices are critical to an organizations success in today's competitive and dynamic market, (Dimitrios 2008). According to Amoro (2011), most manufacturing firms face problems of stock outs, over supply, over stocking, stock obsolescence, poor forecasting, stock pilferage, poor responsiveness to customer needs and lack of proper material management equipment, methods and practices results into poor productivity.

Edwin (2015) conducted a research on the effect of material management on profitability of cement manufacturing companies: the findings showed that proper streamlined material management systems had a positive impact on the profitability in the company. Wilfred (2014) carried out a study on the effect of the effective system of material management techniques on organization performance in the seven-up bottling company in Nigeria where he came up with the conclusion that organizations benefits from material control management by way of easy storage and retrieval of material, improved sales effectiveness, and reduced operational cost. Therefore, this study was undertaken to fill the knowledge gap by assessing the effect of material management on organizational productivity in breweries industry South-East in Nigeria.

Objectives of the Study

The general objective was to examine effect of material management and organizational productivity of breweries industry South-East in Nigeria. The specific objectives were to;

1. To determine the effect of material control and organizational productivity of brewer industry South-East in Nigeria.
2. To examine the effect material planning strategy and organizational productivity of brewer industry South-East in Nigeria.

Research Questions

The following were formulate to give this study direction

1. To what extent does material control relates with organizational productivity of brewer industry South-East in Nigeria?
2. To what extent does material planning strategy relate with organizational productivity of brewer industry South-East in Nigeria?

Hypotheses

The following null hypotheses are formulated to give direction to this study:

H₀₁: Material control has no positive significant relationship with organizational productivity of brewer industries South-East in Nigeria.

H₀₂: Material planning strategy has no positive significant relationship with organizational productivity of brewer industries South-East in Nigeria.

REVIEW OF RELATED LITERATURE

Conceptual Framework

Material management

When we are talking about materials it may include raw materials, components; sub-assemblies etc. now let us see the different definitions of materials management. The materials management is a process that starts with the supplier (Bially 2015). The materials management process begins from the point of entry into the company as raw materials and components. The receipt and section functions begin on receipts of delivery notice from the supplier (Heinritz, 2011). The purchase order copies are received and checked so that quality and other specifications meet the firm's requirements. After then, the inspection job is carried out. The inspection can be carried out by the storekeeper, by technical staff, and by the department requisition, (Morrison 2014). Material management is defined as the process to provide accurate material at the exact place at right time in right quantity so as to minimize the cost of project. Material management is associated with the planning, identification, procuring, storage, receiving and distribution of material.

The basic goal of materials management as explained by Jacobs, Chase, & Aquilano, N (2009) is to make sure that the right item is purchased and made available to the manufacturing operations at the right time, at the right place and at the minimum cost. Dobler and Burt (2016) states that materials management provides an integral system approach to the proper arrangement of materials activities and the total material price. They see it as something that stand as assigning to a single operating department all main activities, which contribute to the price of materials. The goal is to enhance performance of materials systems, as opposed to sub-optimizing the performance of sub-individual operating units that are fragment of the material system.

Organizational Productivity

Productivity is a measurement or calculation between input and outputs. Inputs are the amount of resources such as human resource, money, time, physical, technological and effort spent working in the organization, while output are the result. If the inputs are equivalent to the outputs, the worker is considered productive. When the organization are productive, they accomplish more in a given amount of time. In turn, efficiency saves their company money in time and labour. When employees are unproductive, they take longer time to complete projects, which cost employee's more money due to the time lost (Ikeanyibe, 2009). Productivity is a ratio to measure how well an organization converts input resources (labor, materials, machines, money) into goods and services (Tokarčíková, 2013). Dorgan (2014) defines productivity as "the increased functional and organizational performance, including quality. Rolloos (2007) claims that productivity is that which people can produce with the least effort. Nda & Fard (2013) describe employee productivity as the measure of output per unit of input economically. Rohan and Madhumita (2012) adopt a different view and see employee productivity as the log of net sales over total employees. Pritchard (2015) illustrates three definitions which relate to productivity is output/input, in other words, is a measure of efficiency; is a composition of effectiveness and efficiency; and whatever makes the organization function better.

The importance of higher productivity of the employees in manufacturing firms cannot be overemphasized, which include the following; Higher incomes and profit; Higher earnings; Increased supplies of both consumer and capital goods at lower costs and lower prices; Ultimate shorter hours of work and improvements in working and living conditions; Strengthening the general economic foundation of workers (Parker, Waller & Hu, 2013).

Productivity refers to the real output per unit of labor. It is a powerful driver of international capital flows. Productivity levels seem to be the highest in United States as compared to the euro area, because of higher employment rates in U.S. (Skoczylas & Tissot, 2005). Meneze (2006) defined productivity as the employee's ability to produce work or goods and services according to the expected standards set by the employers, or beyond the expected standards. Productivity is calculated by comparing total amount of output to the total amount of input used to produce this output (Bojke, 2012). Productivity is defined by Amah (2006) as the measure of how efficiently and effectively resources (inputs) are brought together and utilized for the production of goods and services (out puts) of the quality needed by society in the long term. This implies that productivity is a combination of performance and economic use of resources. High productivity indicates that resources are efficiently and effectively utilized and waste is minimized in the organization. Productivity balances the efforts between different economic, social, technical and environmental objectives (Amah, 2006). High productivity provides more profit for investors and promotes the development of the enterprise. Productivity measurement indicates areas for possible improvements and shows how well improvement efforts are faring. It helps in the analysis of efficiency and effectiveness.

Theoretical Framework

This study is anchored on Inventory Management Theory: The theory of inventory management was propounded by Nowicka-Skowron (2007). It emphasizes the role that management material of logistics chains plays in material management and forecasting. The theory posits that the chain of movement of material and information depends to a large extent on the availability of materials and the quality of information at the disposal of the chain operator. Material theory (or more formally the mathematical theory of inventory and production) is the sub-specialty within operations research and operations management that is concerned with the design of production/inventory systems to minimize costs: it studies the decisions faced by firms and the military in connection with manufacturing, warehousing, supply chains, spare part allocation and so on and provides the mathematical foundation for logistics. The inventory control problem is the problem faced by a firm that must decide how much to order in each time period to meet demand for its products. The problem can be modeled using mathematical techniques of optimal control dynamic programming and network optimization.

The purpose of inventory theory is to determine rules that material management can use to minimize the costs associated with maintaining material management and meeting customer demand. Inventory material management is studied in order to help companies save large amounts of money. Inventory material management models answer the questions: When should an order be placed for a product? How large should each order be? The answers to these questions are collectively called material management. Companies save money by formulating mathematical models describing the inventory system and then proceeding to derive an optimal material management policy.

Theoretical Exposition

Material Control and Organizational Productivity

Material control is a management activity that administers how the inventory employed in the production process is procured, acquired, handled and utilized. It is a process that requires planning, organization and auditing of all the elements employed in certain productive activity (Gaury, 2010). The main object of material control is to ensure smooth and unrestricted production. Production stoppages and production delays cause substantial loss to a concern. The quality of finished products depends mainly on the quality of raw materials used. If quality of the raw materials is not up to desired standards, the end product will not be of desired quality which affects the sale of the product in the market resulting in loss of profits as well as goodwill of the concern. It is of vital importance to exercise strict control and supervision over the purchases, storage and handling of materials (Framinan, González, & Ruiz-Usano 2003).

Material Control is a system which ensures required quantity of material of the required quality at the right time and place with minimum investment of capital. It may be defined as the regulation of the functions of an organisation relating to the procurement, storage and usage of materials in such a way as to maintain an even flow of production without excessive investment in material stock (Chang, & Yih, 2014). Material control is a system that assures the continuous availability of all types of materials in right quantities and of requisite quality, but without blocking excessive investment in raw materials and inventories. Bergamaschi, Cigolini, Perona and Portioli (2017) defines material control as a systematic control and regulation over purchasing, storing and consumption of materials so as to maintain a smooth flow of production with optimum investment in inventories.

Material Requirement Planning and Organizational Productivity

Material requirement planning is not only a technique for planning "material" requirements. It is also a logic that relates all the activities in a company to customer demands. People can manage all the resources in a company by using MRP logic together with data processing in other areas. This entire system is called a Manufacturing Resources Planning System, or MRP II. With the introduction of technological enhancements such as open systems platforms and client/server architecture, MRP II systems are now evolving into Enterprise Resource Planning Systems (ERP). An ERP system plans not only the allocation of manufacturing resources but also other resources, and has applications in service as well as manufacturing industries. In this book, we concentrate our discussion on manufacturing.

Material requirements planning (MRP) is a system for calculating the materials and components needed to manufacture a product. It consists of three primary steps: taking inventory of the materials and components on hand, identifying which additional ones are needed and then scheduling their production or purchase (Oladokun, & Olaitan, 2012). Material requirements planning is a computer-based inventory management system designed to improve productivity for businesses. Companies use material requirements-planning systems to estimate quantities of raw materials and schedule their deliveries. Material requirements planning is a computer-based inventory management system designed to improve productivity for businesses. Companies use material requirements-planning systems to estimate quantities of raw materials and schedule their deliveries (Waldner, & Jean-Baptiste 2012). Materials Requirements Planning (MRP) is a computer-based production planning and inventory control system which is concerned with both production scheduling and inventory control. It is a material control system that attempts to keep adequate inventory levels to assure that required materials are available when needed (Waldner, & Jean-Baptiste 2012).

Empirical Review

Previous studies have convergent opinions on the relationship between the materials management and organizational productivity. For example, Adamu (2020) examined the effect of material management on the performance of Benue Brewery Industry, Nigeria using survey research design with a population of 242 respondents and a sample of 151. Data was collected using questionnaire and analyzed using descriptive statistics such as frequency, simple percentage and the relationship between the variables of the model was tested using multiple regression analysis. The result of the regression analysis shows that inventory control system and stock valuation have a positive and significant ($p < 0.05$) effect on organizational performance. Lead time was negatively signed but the effect is statistically significant ($p < 0.05$). The researcher concludes that when properly carried out planned material management can bring about efficiency at workplace. The researcher recommends that, management of the Nigerian Brewery should bring an improvement in the lead time as it is will bring about acquiring and delivering the needed materials within the shortest time possible.

Kisioya and Moronge (2019) examine the influence of Material handling practices on performance of manufacturing firms in Nairobi Kenya. The study adopted descriptive survey design and the target population was 355 large -scale-manufacturing firms in Nairobi county Kenya. Stratified random sampling was adopted to select a sample size of 188 large-scale manufacturing firms in Nairobi County, Kenya. Primary data was collected using structured questionnaires inform of Likert scale. Filled questionnaires were reviewed for completeness and then coded and entered in SPSS. Data analysis was involved both descriptive and inferential statistics. The analyzed data was presented inform of tables together with associated explanations. A good response rate of 71.3% was realized. It was established that most of the material handling practices indicators have positive impact on performance of the firm. The study further adopted a regression analysis to determine the relationship between the variables at 5% confidence level of significance. The study findings showed that the four variables had a significant influence on performance of the firms.

Joel, and Noor (2019) determined the influence of material management on performance of Large Manufacturing Firms in Nairobi City County, Kenya. The study adopted the descriptive research design; research design is defined as a plan, structure and strategy of investigation conceived to obtain answers to research questions and control variance. The collected research data was checked for any errors and omissions, coded, defined and then entered into Statistical Package for Social Science (SPSS Version 23). Descriptive statistics was used to portray the sets of categories formed from the data. The mean, standard deviation and variance on the dependent and independent constructs was used to show how clustered or dispersed the constructs are. The study used multiple linear regression analysis to test the statistical significance of the various independent variables In testing the significance of the model, the coefficient of determination (R^2) was used to measure the extent to which the variation in implementation on supply chain performance is explained by the variations of various factors on the outsourced distribution services. The study established that Basic functionality of materials management includes various factors such as supply, material pricing, and usage. Large manufacturing firms should take more in-depth look at the functions of materials management and how it is advantageous to large manufacturing firms supply chain to enable production facility and locate areas where aid is needed.

Daniel, (2019) examined the effects of materials management on the productivity of an organization. Many business organizations in Nigeria fail to value the role of materials management in improving their productivity. A simple size of 255 was obtained from the population of 705 at 5% error tolerance and 95% degree of freedom using Yamane's statistical formula 255(100%) of the questionnaires distributed 250 (98%) were returned and 5(2%) were not returned. The questionnaire was designed in Likert scale format. The researchers conducted a pre-test on the questionnaire to ensure the validity of the instrument. Pearson moment product co-efficient and regression analysis were used to test the hypotheses. The study discovered that material management used by the organization adds to the profitability of the company, sufficient storage facilities stops interruption on production process amongst other things. As an outcome of the above, it was suggested that there should be respectable record system of materials for the

processes of the organization as it influences production and the training of staff to obtain new skills and knowledge required for the work for the profit of the organization

Dagim, (2018) examined the role of material management on organizational performance: A Case Study in Commercial Bank of Ethiopia. The research employed descriptive research designed to describe the role of material management on the bank's performance. The target populations of the study were 80 employees of the bank who are directly involved in the material management aspects. The researcher used census sampling, by involving all of the employees of the bank who are working in material management as the population of the study. The quantitative data were analyzed through descriptive statistics such as mean, standard deviation, median and percentages.. The thesis result reveals the study established that there is practice of planning and using it, but federal proclamation is not well obeyed. This concluded that the bank's endeavor to material procurement is not backed by proper practice based on law. In addition, inventory control system is employed only averagely that it lacks consistency and profundity.

Oyebamiji (2018) examined the effect of materials management on the performance of manufacturing industry with particular reference to the selected cement industry. Purposive sampling technique was employed to select Dangote Cement Plc, Ashaka Cem Plc and Lafarge Africa Plc, while judgmental technique was used to select ten (10) staff members from purchasing/store/ logistic department of the selected cement industry respectively, totalling thirty (30) respondents as a sample size for the study. The data collection instrument for the study was a structured questionnaire and a personal interview. Data analysis was conducted with the aid of multiple regression analysis. Result revealed that materials management dimensions jointly contribute significantly to firm performance. The study further revealed that materials inventory, materials procurement and inter-departmental collaboration have an insignificant effect on firm performance, while only materials storage has a significant impact on firm performance. The study concluded that effective materials management is a veritable tool to organization performance.

Napoleon, Ayoakateng, Asubonteng, Asigri and Alubokin (2018) assessed material management techniques required for construction firms in the Tamale Metropolis of Ghana. The data was analyzed using descriptive and inferential statistics such as factor analysis, and Pearson product moment correlation coefficient. The study adopted descriptive quantitative survey approach. Using empirical data obtained from ninety-six administered questionnaires of material managers in Tamale Metropolis; the data was analyzed using descriptive and inferential statistics such as factor analysis, and Pearson product moment correlation coefficient. The study indicated that firms often employed store keepers and security personnel on site; list of materials in project that includes for example (material name, material number and unit price), and provide clear specifications to suppliers. However, they seldom use ICT; and rarely offer training for their workers. The study further revealed that planning and monitoring of material schedule; establishing good business relations with suppliers; the use of security measures on site; use of information communication technology; and also use of competent workers as well as effective training of workers is significant for effective material management on construction site, and has direct effect on construction project delivery success.

Assiamah, Daniel and Hanson (2018) studied materials management and its effect on cost of supplies case study of cocoa processing company of Ghana Primary data, interviews (face-to-face, telephone) and questionnaire were used. Secondary data has been sourced through literature from the university library and internet sources, qualitative design method was chosen over others because of the nature of the research work. Financially, materials (inventories) are very important to manufacturing companies and on the balance sheet they usually represent from twenty to sixty percent of total assets. Therefore, if the application of the concept of materials management is accepted with well qualified personnel, it could lead to the minimization of cost. The function of a materials manager is to promote coordination and integration within the supply chain and the major benefits are assumed to be; reduction in interdepartmental conflicts, reduction of inventory levels, increased knowledge of total corporate operations and reduction of materials handling costs among others

Oba-Abimbola, Adejonwo, Ademola and Obadeji (2017) examined the effectiveness procurement on material management in manufacturing industries. The target population of the study was 56 employees of Nigeria Breweries. A sample of 49 respondents was selected from this population using the stratified

random sampling technique, where 7 departments, which directly deal with materials, were selected which include: production, Purchasing, quality Control, Warehouse/store, Human Resource Development, Finance and audit and physical Distribution departments .Data was collected through a structured questionnaire, consisting mainly of closed ended and open-ended questions. The data was analyzed through descriptive statistics such as mean, standard deviation, median and percentages. Results showed that there was significant relationship between effective procurement and material management as a result of inventory control system involvement.

Saukkonen (2017) studied the development of material management system case Black Bruin. Focus on inventory replenishment system and modelling of costs. Mixed research method, was adopted which included elements of both qualitative and quantitative methodologies. Based on the collected information, the author identified the most appropriate inventory control solution for the Black Bruin Inc. case and constructed it in Excel by using VBA (Visual Basic for Applications) code features. As a result, the constructed model could be used as a tool in the decision-making process regarding the inventory operations. The model can compute the optimal order quantity and reorder point decision variables regarding the minimum objective value of the total cost. At the end of the research process, the author outlined the advantages and disadvantages of the model as well as its most sensitive and uncertain elements. In addition, guidelines for the model's usage, suggestions for improvements and further research recommendations were given and thoroughly explained. .

Cyprian and Makori (2017) examined the effect of material management on the performance of Mumias Sugar Company Limited in Kenya. Stratified random sampling was used to select 79 respondents from the Company. The sample of 79 was equivalent to 10% of the target population which is regarded as statistically significant in a descriptive study with a finite universe. The study utilized a research questionnaire. Data were analyzed with the aid of the Statistical Package for Social Sciences (SPSS) to generate the required frequencies and percentages to answer the research questions. Results reveal that materials procurement and inventory control positively influenced the performance of sugar manufacturing industries in Kenya.

METHODOLOGY

Research Design

The researcher adopted survey research design. This approach is a research method that studies people or objects, their attitudes, belief system, opinions and other behavioral manifestations. study was carried out in Nigerian Breweries company in South-East, Nigeria. Nigerian Breweries companies cut across Breweries firms that have factories and operate in the south east viz, Nigerian Breweries plc, Onitsha, Nigerian Breweries plc, Owerri, Nigerian Breweries plc, Enugu. And Nigerian Breweries plc, Aba. The population of the study comprises 2252 of all the employee of Nigeria Breweries Company in the South-East, Nigerian Breweries plc, Onitsha, Nigerian Breweries plc, Owerri, Nigerian Breweries plc, Enugu and Nigerian Breweries plc, Aba. Sample size of this study was derived using sample size calculation. The Sample size is 328 using Sample size calculator to determine the number of people that actual needed for the study. This study will use of primary data. The primary source of data will be the sampling or study unit regarding in (or form) which information is collected on first hand basis. The instrument employed for data collection will be questionnaire constructed by the researcher. The researcher used face and content validity in this research work. The researcher used test-retest method in order to test reliability of the research instruments. The study employed Cronbach's alpha to verify the internal consistency of each construct in order to achieve organizational productivity. The Cronbach's Alpha results shows that material control (MC), material requirement planning (MRP), material handling (MH) and organizational productivity recorded reliability coefficients of 0.796, and 0.722, 0.790, respectively. Base on the threshold, they are found to be reliable for the study. Multiple regression analysis was conducted to assess the relative predictive power of the independent variables on the dependent variable. The statistical package for social sciences (SPSS) version 21 was employed to test the hypotheses.

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

The data generated from the employees of the selected sampled manufacturing firms were presented, analyzed and interpreted. A total of three hundred and twenty eight copies of the questionnaire were distributed to the respondents, out of which three hundred copies of questionnaire were properly filled and found relevant to the study. This shows a response rate of 99.5 percent. Therefore, the analysis in this section will be based on the three hundred relevant copies of questionnaire.

Question One: *To what extent does material control relates with organizational productivity of brewer industry South-East in Nigeria?*

Table 1: Influence of material control on with organizational productivity of brewer industry South-East in Nigeria

S/N	ITEMS	SA	A	U	D	SD	Mean
1	Material control achieves accurate demand forecasting to determine stock coverage	101 25.3%	176 44.0%	59 14.8%	46 11.5%	18 4.5%	3.74
2	Material stock control leads to Reduction in wastes	149 37.3%	150 37.5%	61 15.3%	32 8.0%	8 2.0%	4.00
3	Material stock control contributes to Reduction in production costs	134 33.5%	197 49.3%	41 10.3%	11 2.8%	17 4.3%	4.05
4	Material control defined stock taking schedules	120 30.0%	193 48.3%	32 8.0%	22 5.5%	33 8.3%	3.86
5	Material control has accurate material stock records	157 39.3%	169 42.3%	43 10.8%	20 5.0%	11 2.8%	4.10

Source: Researcher's Field Survey, 2021

Table 1 presents the effect of self- rostering on employee performance in manufacturing industries in South-East, Nigeria. Regarding the issue bordering on Material control achieves accurate demand forecasting to determine stock coverage, 101(25.3%) of the total sample strongly agreed, 176 (44%) agreed. However, 46(11.5%) disagreed, 18(4.5%) strongly disagreed and 59 (14.8%) were undecided. On whether Material stock control leads to reduction in wastes,149 (37.3%) respondents strongly agreed and150(37.5%) agreed. On the other hand, 32(8%) respondents disagreed,8(2%) strongly agreed and 61 (15.3%) were undecided. On questions that bordered on whether Material stock control contributes to reduction in production costs, 134(33.5%) respondents strongly agreed and 197(49.3%) agreed. Conversely, 11(2.8%) disagreed, 17(4.3%) strongly disagreed and 41 (10.3%) were undecided. On whether Material control defined stock taking schedules, 120(30%) respondents strongly agreed and193 (48.3%) agreed. On the other hand, 22(5.5%) disagreed,33 (8.3%) strongly disagreed and 32 (8%) were undecided . The result on Table 1 indicates that 157(39.3%) respondents strongly agreed that Material control has accurate material stock records, 169(42.3%) disagreed, 20(5%) strongly disagreed and 43 (10.8%) were undecided . Using a cutoff point of 2.50 for the rating scale, all the items had mean scores above the cutoff point. This implies that material control improved organizational productivity of brewer industry South-East in Nigeria.

Question Two: *To what extent does material planning strategy relate with organizational productivity of brewer industry South-East in Nigeria?*

Table 2: Effect of material planning strategy relate with organizational productivity of brewer industry South-East in Nigeria

S/N	ITEMS	SA	A	U	D	SD	Mean
1	Material requirement planning reduce cost of materials	157 39.3%	169 42.3%	43 10.8%	20 5.0%	11 2.8%	4.10
2	Material requirement planning improve labor productivity	122 30.5%	154 38.5%	78 19.5%	22 5.5%	24 6.0%	3.82
3	Material requirement planning provides adequate storage of materials	99 24.8%	212 53.0%	48 12.0%	23 5.7%	18 4.5%	3.88
4	Material requirement planning system ensures material is available for production	92 23.0%	126 31.5%	72 18.0%	62 15.5%	48 12.0%	3.38
5	Material requirement planning reduce of materials surplus	85 21.3%	178 44.5%	77 19.3%	49 12.3%	11 2.8%	3.69

Source: Researcher's Field Survey, 2021

The result on Table 2 indicates that 157(39.3%) respondents strongly agreed that Material requirement planning reduce cost of materials, 169(42.3%) disagreed, 20(5%) strongly disagreed and 43 (10.8%) were undecided. On whether Material requirement planning improve labor productivity, 122(30.5%) respondents strongly agreed, 154(38.5%) agreed, 22(5.5%) disagreed,24(6.0%) strongly disagreed and 78 (19.5%) were undecided. 99(24.8%) respondents strongly agreed that Material requirement planning provides adequate storage of materials, 212(53%) agreed, 23(5.8%) disagreed, 18(4.5%) strongly disagreed and 48 (12%) were undecided. 92(23%) respondents strongly agreed that material requirement planning system ensures material is available for production, 126(31.5%) agreed, 62(15.5%) disagreed,48(12%) strongly disagreed and 72 (18%) were undecided . Also Material requirement planning reduce of materials surplus, 85(21.3%) respondents strongly agreed and 178(44.5) agreed. However, 49(12.3%) disagreed,11(2.8%) strongly disagreed while 77 (19.3% were undecided. With a cutoff mean score of 2.50 for the rating scale, all the items had mean scores above the cutoff point. This implies that material planning strategy improves organizational productivity of brewer industry South-East in Nigeria.

Test of Hypotheses

Hypothesis One

Ho: Material control has no positive significant effect on organizational productivity in Nigeria brewer industries South-East

Ho₁: Material control has a positive significant effect on organizational productivity in Nigeria brewer industries South-East

Table 3: Regression analysis showing the effect of material control on organizational productivity in Nigeria brewer industries South-East

Model	Unstandardized Coefficients		Standardized Coefficients Beta (β)	T	Sig.
	B	Std. Error			
(Constant)	34.044	2.662		12.786	.000
Material control	2.752	.168	.636	16.431	.000

Multiple R=0.636, Multiple R²=0.404, Adjusted R²=0.403, F_{1,398}=269.971

***p<0.05**

Table 3 revealed that Material control has a significant positive influence on organizational productivity in Nigeria brewer industries South-East . (t =16.431, p<0.05).The null hypothesis is rejected. The table indicates a significant multiple correlation between the predictor variable (material control) and influence on organizational productivity in Nigeria brewer industries South-East (r = 0.636, p<0.05). The value of the coefficient of determination (R²= 0.404) indicates that material control accounted for about 40.4% (R² x 100) of the observed variance in organizational productivity in Nigeria brewer industries South-East while the remaining 59.6% unexplained variance is largely due to other variables that can account for employee performance in manufacturing industries in South-East, Nigeria. The calculated F-ratio (269.971) is statistically significant at 0.05 level of significance. This implies that the predictor variable provides a significant explanation for the variation in on organizational productivity in Nigeria brewer industries South-East.

Hypothesis Two

Ho: Material planning strategy has no positive significant effect on organizational productivity in Nigeria brewer industries South-East.

Ho₁: Material planning strategy has a positive significant effect on organizational productivity in Nigeria brewer industries South-East.

Table 4: Regression analysis showing the effect of material planning strategy on organizational productivity in Nigeria brewer industries

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta (β)		
(Constant)	36.496	1.834		19.901	.000
Material planning strategy	2.696	.119	.750	22.613	.000

Multiple R=0.750, Multiple R²=0.562, Adjusted R²=0.561, F_{1,398}=511.350

***p<0.05**

Table 4. revealed that material planning strategy has a positive significant effect on organizational productivity in Nigeria brewer South-East, Nigeria. (t =22.613, p<0.05).The null hypothesis is rejected. The table indicates a significant multiple correlation between the predictor variable (material planning strategy) and organizational productivity in Nigeria brewer in South-East, Nigeria (r = 0.750, p<0.05). The value of the coefficient of determination (R²= 0.562) indicates that material planning strategy accounted for about 56.2% (R² x 100) of the observed variance in organizational productivity in Nigeria brewer in South-East, Nigeria while the remaining 43.8% unexplained variance is largely due to other variables outside the regression model which are otherwise included in the stochastic error term. The calculated F-ratio (511.350) is statistically significant at 0.05 level of significance. This implies that the predictor variable provides a significant explanation for the variation on organizational productivity in Nigeria brewer.

Summary of Finding

1. Material control has a significant positive influence on organizational productivity in Nigeria brewer industries South-East. (t =16.431, p<0.05).
2. Material planning strategy has a positive significant effect on organizational productivity in Nigeria brewer South-East, (t =22.613, p<0.05).

CONCLUSION

This study examined the effect of material management and organizational productivity in Nigeria breweries industry South-East. From the analysis the study found out that material control has a significant positive influence on organizational productivity in Nigeria brewer. Material planning strategy has a positive significant effect on organizational productivity in Nigeria brewer South-East. Therefore, the study concludes that material management positive significant effect on organizational productivity in Nigeria brewer South-East.

RECOMMENDATIONS

From the findings made in this study, the following recommendations are put forward:

The study recommended that manufacturing firms develop a policy framework to facilitate faster implementation material control systems in Nigeria brewer so as to excel and guarantee its future, hence improving organizational productivity.

Nigeria breweries in Nigeria should increase their resource commitment to staff training and Research and Development in material planning strategy so as to develop the necessary skills, update their knowledge, and enhance organizational productivity

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