Warehouse Management and Performance of Selected Brewery Companies in Abia State

Onu Abara *PhD.*
Department of Business Administration and Management
School of Management Sciences
Federal Polytechnic, Ekowe, Bayelsa State
email: abara.onu.pg76985@unn.edu.ng; **08033716998**

Abstract

The study examined the effect of warehouse management on the performance of selected brewery companies. The study employed the survey design and the purposive sampling technique to select 450 staff across management, senior and junior level. A well-constructed questionnaire, which was validated, and was used for collection of data from the respondents. The data obtained through the administration of the questionnaires was analyzed using the Pearson correlation analysis. The results of the correlation analysis showed that there is positive and significant relationship between warehouse costs has significant effect on organizational productivity ($r=0.772$; $p<0.05$)., Also, a positive and significant relationship exists between stock control and organizational effectiveness ($r=.896$; $p<0.05$)., Furthermore, a positive and significant relationship exists between distribution planning and logistics performance ($r=.896$; $p<0.05$). The results were found to be consistent with empirical findings of past studies in literature. The study concluded that warehouse management has significant effect on the performance of selected brewery companies in Nigeria. The study hereby suggest; Computerizing warehouse management should be employed by the management of every brewery companies; Brewery companies should ensure there warehouse are properly checked daily by the store keeper or store manager to safe the inventory from cracking, falling on each other or spoiling; Warehouse managers should be adequately remunerated through attractive compensation packages after employed in order to avoid temptation by the employees to stealing from the firm; Standard personnel and recruitment policies should be formulated and maintained for smooth warehouse management.

Keywords: Warehouse, Management, Performance, Organization, Brewery

Introduction

All over the world, there is a growing appreciation of the importance of warehousing to the profitability and sustainability of any organization. This is so because the effective and efficient management of any organization requires that all its constituent elements operate effectively and efficiently as a unit with warehousing been a critical element that constitutes the make-up of any organization (Alan, Phil & Peter, 2010). More so in Nigeria where there are various companies offering the same or similar products which creates a lag between production and consumption, warehousing is key to the profitability and the sustenance of an organization (Ogbo, Onekanma, & Wilfred, 2014). This is true especially in the manufacturing industry in Nigeria with various companies producing homogenous goods that compete in the same market coupled with the fact that the entry barrier in the manufacturing industry is low this has made warehousing critical to the survival and the continued existence of any manufacturing organization in Nigeria (Anichebe & Agu, 2013). According to Alan, Phil and Peter (2010), globally manufacturing companies both large and small enterprises face severe challenges when it comes to warehouses due to the skyrocketing costs associated with it. This has led to manufacturing organizations scrambling to find cost-cutting measures and higher operating efficiencies (Teece, 2010). Furthermore, large enterprises continue to seek to reduce

the number of stocking locations and drive more productivity from the remaining distribution centers. Furthermore, in Nigeria, the cost of real estate has increased this has also affected the cost associated with warehouse management in Abia. As a result, many manufacturing organizations have incurred severe losses when they fail to clear out their stock on time. This has negatively affected their organizational productivity going forward (Anichebe & Agu, 2013).

Furthermore, manufacturing organizations around the world have struggled when it comes to controlling their stock. Stock control has to do with *checking the stock* available at any given time, and the methodology of tracking the available stock (Hershey & Blanchard, 2018). It also has to do with ensuring that appropriate amounts of stock are maintained by a business, so as to be able to meet customer demand without delay. In majority of large manufacturing companies in the world, digital inventory systems make up the bulk of the stock control devices (Chand, 2013). However, according to Anichebe and Agu (2014) most manufacturing companies in Nigeria still engage in crude methods of stock control which include using pen and paper to track their stock availability. This has led to many errors in stock control and which negatively impacted on the ability for brewery companies to carry out key operations like production on schedule and effectively. This has negatively affected the organizational effectiveness of brewery companies. In addition, manufacturing companies globally face issues when it comes to distribution planning. The unpredictable nature of transportation all around the globe has made it difficult for companies to envisage the appropriate methods and means of delivering goods to customers. More so in Nigeria, due to the poor infrastructural nature of our transport systems manufacturing companies often have had challenges planning their distribution (Anichebe & Agu, 2013).

According to Odepidan (2015) many manufacturing companies have as a result of these distribution challenges left their distribution planning and execution to third party logistics companies, some of whom consistently fail to deliver the products to customers on time. As such, the poor distribution planning of brewery companies has led to poor logistic performances. These challenges have impeded the organizational performance of manufacturing companies in Nigeria has led to many manufacturing companies closing up. This has discouraged both foreign and domestic investor from investing in the manufacturing sector in Nigeria. Thus, there is a need to determine how warehousing can be managed to ensure excellent organizational performances from manufacturing companies. It is against this background, that the study will aim to determine the effect of warehouse management on the performance of selected brewery companies in Abia state.

Statement of the Problem

The major aim of any business organization is to attain a high organizational performance. For manufacturing companies to achieve this aim, they more often than not need to increase their production capacity in order to fully take advantage of the growing demand in the market. The increase in production capacity often times leads to an increased need for an appropriate warehouse management system. However, many manufacturing companies in Nigeria suffer from poor warehouse management which has led to a downturn in their financial performance (Odepidan, 2015). According to Okafor (2017), over a hundred manufacturing firms have closed down in the past five years with many of the companies citing poor warehouse management as a factor for shutting down. According to Charnov (2005), the main of aim of any brewery company is to increase profitability while reducing costs. However, Anichebe and Agu (2013) noted that many brewery companies in Abia are no longer profitable due to the increasing costs of warehouse management. According to Akanbi, Oluleye and Onanuga (2018) the cost of warehouse management in Nigeria can be as much as ₦6 million annually due to the rise in real estate costs, insurance costs, payment of warehousing staff and

the cost of depreciation if the product is not sold on time. This has negatively affected the organizational productivity of brewery companies in Abia. Furthermore, according to Ogbo, Onekanma and Wilfried (2014) most brewery companies in Abia are yet to integrate digital inventory systems into their stock control methods. This means that majority of brewery companies in Abia still use inefficient and crude techniques for stock control such as noting the availability of raw materials or product with biro and paper. This has often led to costly errors in terms of knowing the stock availability of raw materials or finished products and has negatively affected the organizational effectiveness of brewery companies in terms of production and distribution in Abia (Somuyiwa, 2010).

Additionally, the poor state of infrastructures of the transportation system in Abia has made it difficult for brewery companies to be able to transport goods from the point of production to location where there are demands for the products (Anichebe & Agu, 2013). This has affected their ability properly plan and execute their distribution to the end users of the products in the supply chain. This has led to delayed deliveries or cancelation of orders by the company due to the inability to meet up with the demands making customers unhappy and unsatisfied (Odepidan, 2015). This poor distribution planning has negatively affected the logistics performance of brewery companies in Abia. Therefore, this study aims to solve these determine the effect of warehouse management on the performance of selected brewery companies in Abia state.

Research Objectives

The general objective of the study was to determine the effect of warehouse management on the performance of selected brewery companies in Abia state. The specific objectives are to:

i. determine the effect of warehouse costs on the organizational profitability of selected brewery companies in Abia state.
ii. determine the relationship between stock-control and organizational effectiveness of selected brewery companies in Abia state.
iii. determine the relationship between distribution planning and logistics performance of selected brewery companies in Abia state.

Scope of the Study

The study focused on the effect of warehouse management on the performance of selected brewery companies in Abia State. The target population are the employees of Nigerian Breweries plc, Sona Breweries plc and Guinness Nigerian plc. The study adopted simple random sampling technique while data was analyzed using the regression analysis and correlation analysis. The geographical location of the study was Abia State because it is commercial capital and has a high concentration of brewery companies in South East. Finally, the study was carried out between April, 2024 and September, 2024 (6 months).

Operationalization of the variables

The variables for this research are consequently operationalized as follows:

$Y = f(X)$

Y = Organizational Performance

X = Warehouse Management

where Y = Dependent variable

X = Independent variable

$y = f(x_1, x_2, x_3 \ldots x_n)$

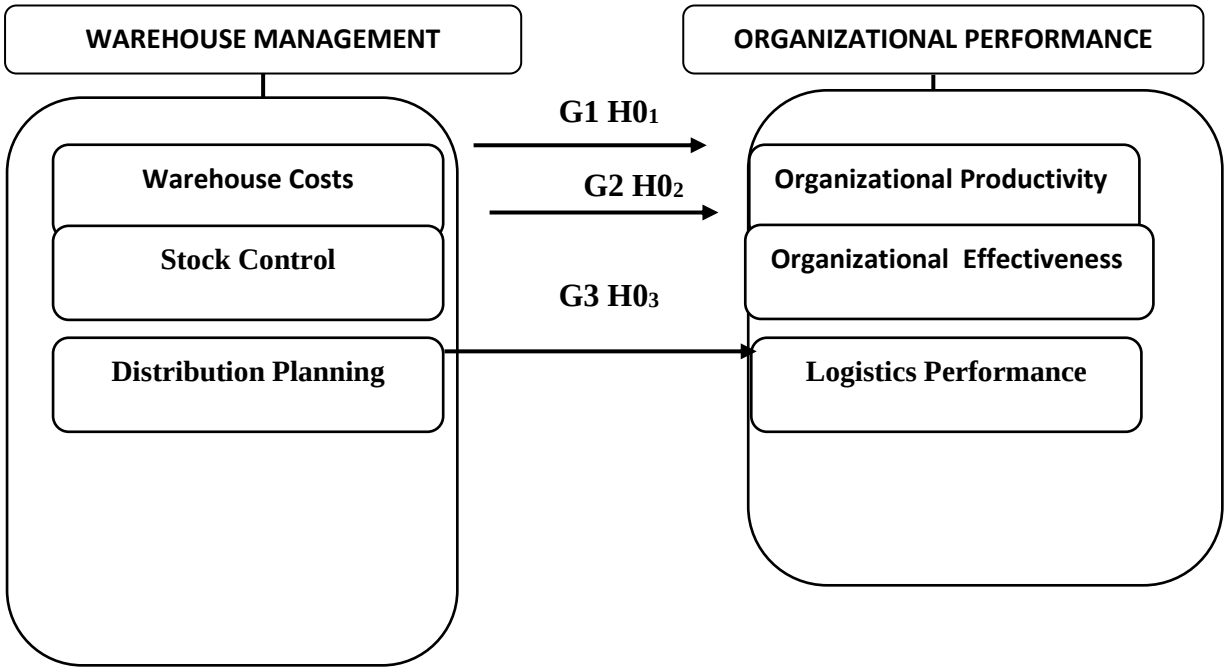
x_1= Warehouse Costs

x_2= Stock control

x_3= Distribution planning
$y = (y_1, y_2, y_3)$
y_1= Organizational Productivity
y_2= Organizational Effectiveness
y_3= Logistics Performance
$y = f(x_1)$ _____ (1)
$y = f(x_2)$ _____ (2)
$y = f(x_3)$ _____ (3)
Based on regression, we have
$y_1 = \alpha 0 + \beta_1 x_1 + \mu$…. (1)
$y_2 = \alpha 0 + \beta_2 x_2 + \mu$…. (2)
$y_3 = \alpha 0 + \beta_3 x_3 + \mu$…. (3); Where, α is the constant of the equation, β is the coefficient of X the independent variable where μ is the error or stochastic term in the equation.

Literature Review

Conceptual Review and Model



Warehouse Management

Chand (2018) defines warehousing as assumption of responsibility for the storage of goods by storing the goods throughout the year and releasing them as and when they are needed, warehousing creates time utility. Hugos (2013) defines it as the act of storing goods that will be sold or distributed later. Carrus-Wilson (2013) defines it as a commercial building for storage of goods. Warehouses are used by manufacturers, importers, exporters, wholesalers, transport businesses and customs (Moss, 2011). They are usually large plain buildings in industrial parks on the outskirts of cities, towns or villages. According to Wilson (2010) warehousing is an organizational function that enables the storage of products (raw materials, parts, goods in process, finished goods at and between point of origin and point of consumption and provides information to management on the status, condition and the disposition of product being stored.

Types of warehouses

According to Richards (2011) warehouses can be classified into five different types including:

Private warehouses*:* Private warehouses are owned and administrated by the private manufacturers. Theses warehouses are designed specifically to store the products with consideration of their nature such as adequate temperature level or lighting.

Public warehouses*:* The government may regulate the operations of these warehouses. Manufacturers, exporters, importers, government agencies or wholesalers mostly use such. An individual, a firm or company can own one too

Government warehouses*:* These warehouses are owned, ran, and controlled by the government. **Bonded warehouses*:*** These warehouses are maintained and controlled by both the government and private entities. Private entities are required to acquire a license from the government to operate such warehouses. Generally, harbor and dock authorities own these warehouses in order to store imported goods that need to be paid duty taxes.

Co-operative warehouses*:* These warehouses are owned and managed by co-operative societies. These warehouses are designed to be economical so that the members of the society can have access to it.

Warehouse Costs

According to Coyle, Bardi and Langley (2013) warehousing costs means the costs associated with the storing of the product. The warehouse as part of the supply chain can generate both good and waste for the company (Emmett, 2015). Waste generated affects operations and results in cost increase (Smith, 2014). According to Richards (2011) warehouse costs is made up of the *cost* of the inventory itself, plus the *cost* of transporting the goods, *cost* of managing the goods (labor, fumigation, repackaging, etc) and keeping the goods in *warehouses*. According to Collins (2018) warehousing cost is *the costs involved in storing goods in a warehouse. Chand (2013) noted that* warehousing cost is not only interest on stocks but also cost of store building for storage, insurance and obsolesce and movement of inputs from place of storage to the factory where the materials have to be finally used to convert them into finished goods. Some warehousing costs tend to be ignored or misallocated, because the analyst does not recognize where they belong. In any costing system, allocation of overhead costs is a matter of judgment, and no specific formula will be correct for every user (Wyke, 2012). According to Norton (2015) some warehouse costs are easy to identify as those which can be capitalized as part of inventory costs because they are clearly related to the manufacturing process. On the other hand, other costs are not as easy to analyze from the standpoint of inventory capitalization (Monczka, Handfield, Giunipero& Patterson, 2009).

Categories of Warehouse Costs

According to Speh (2009) warehousing costs vary from warehouse to warehouse however there are usually four broad categories of warehousing costs which are:

Handling*:* All expenses associated with moving product in or out of the warehouse should be included in the handling cost center. The largest component is the labor used to handle the product that moves through the distribution center. It includes receiving, put-away, order selection, and loading. It also may include labor to re-warehouse, repackage, or refurbish damaged product. Handling also includes all costs associated with the equipment used to handle product in the warehouse, such as the depreciation of equipment cost, and the cost of fuel, or electricity to power the equipment. Other handling expenses are the detention of truck or rail cars, operating supplies, and trash disposal. In effect, handling includes all those costs that are associated with "goods in motion."

Storage*:* Storage expenses are costs associated with "goods at rest." These costs would be incurred whether or not any product ever moved. Because storage expenses are related to the cost of occupying a facility, and these costs are normally accumulated each month, storage is expressed as a monthly cost. If an entire building is dedicated to an operation, storage expenses are the total occupancy cost for that facility.
Operations administration*:* These expenses are incurred to support the operation of the distribution center. Closing the facility would eliminate these costs. Included are costs for line supervision, clerical effort, information technology, supplies, insurance, and taxes.
General administrative expenses*:* Expenses not incurred for a specific distribution center are included in this category. General management, non-operating staff, and general office expenses are examples. Allocation of such expenses to each warehouse is a judgment call.

Stock Control

According to Pontius (2018) stock control refers to all aspects of managing a company's inventories: purchasing, shipping, receiving, tracking, warehousing and storage, turnover, and reordering. In addition, Shivam (2018) noted that it is used to cover functions which are quite different and are related to one another only in that they both require the maintenance of adequate records of inventory as well as receipt and issue corresponding to these two functions. It is also concerned with the safeguarding of the undertaking's property in the form of raw materials, work-in-progress and semi-finished product. Leitner (2016) described it as the sum total of those activities necessary for the acquisition, storage, sale, disposal or use of material. According to Mulcachy and Sydow (2008) stock control is the activity of purchasing, traffic, receiving, warehousing, surplus and salvage/scrap management as well as production planning and control. In addition to this customer service, scheduling, shipping and physical distribution are also sometimes included. Furthermore, Higginson and Bookbinder (2014) describe stock control as an activity integrated, coordinated and entwined with such widely spread functions of management as purchasing, production, planning and scheduling, finance, marketing, physical distribution, store keeping etc. Stock control is also concerned with the proper recording of the receipt and consumption of the material as well as the flow of goods through the plant into finished stock and eventually to customers (Shivam, 2018).Stock control is used to keep inventories in a desired state while continuing to adequately supply customers(Lewis, 2012).
Stock control is closely related with all the functions of engineering, procurement of materials down to final distribution. Hayes (2014) noted that facets of inventory control include supply chain management, production control, financial flexibility, and customer satisfaction. Furthermore, Gulati (2009) also stated that inventory control techniques often rely upon barcodes and radio-frequency identification (RFID) tags to provide automatic identification of inventory objects including but not limited to merchandise, consumables, fixed assets, circulating tools, library books, and capital equipment which in turn can be processed with inventory management software

Benefits of Stock Control

According to Sinha (2013) there are a variety of purposes that Stock Control serve in an organization. Some of them are:
Avoiding Losses of Sales*:* Through stock control a firm can avoid sales losses on account of non-supply of goods at times demanded by its customers.
Reducing Ordering Costs: Ordering costs, i.e., the costs associated with individual orders such as typing, approving, mailing, etc. can be reduced, to a great extent through stock control.

Achieving Efficient Production Run: Stock Control ensures efficient production run. In other words, supply of sufficient inventories protects against shortage of raw materials that may at times interrupt production operation.

Meeting Customer Demand: Stock control allows the company to determine the amount needed to meet customer demand with as little delay in delivery as possible. When a company continuously fails to meet customer demand due to stock outs, customers may choose a competitor with a better delivery record. A business must have the ability to determine the level of stock needed for actual customer demand as well as anticipated demand.

Managing Stock: Stock management must include an inventory control system to ensure the accuracy of inventory records. The company will not have the ability to make purchasing decisions without accurate inventory quantities. The marketing department, sales and purchasing must work together to determine the appropriate levels of stock to have on hand. Sales and marketing provide information such as sales forecasts to predict the number of materials the company needs to meet demand. Purchasing must then consider lead times and supplier reliability when ordering materials for the company.

Demerits of Stock Control

According to Robertson (2018) the following are the demerits of stock control

High Cost of Implementation*:* Stock control typically results in a much higher cost of implementation, especially in large businesses with multiple different locations. Even after the necessary equipment and programming is installed, periodic maintenance and upgrades will still be necessary on an ongoing basis, which will cost businesses even more.

Recorded Inventory May Not Reflect Actual Inventory*:* Stock control functions can be a disadvantage because the recorded inventory may not reflect the actual inventory over time. This is mainly due to the fact that physical inventory counts aren't used in a stock control system. Therefore, whenever errors are entered into the system, items are stolen, or merchandise isn't properly scanned, the recorded figures will not match with the actual inventory.

Greater Complexity*:* Another disadvantage of stock control is that it requires businesses to offer additional training to each of their employees because of the complexity of the system. For example, employees will need to be trained on how to use the company's specific software programs and also be trained to use special equipment, such as scanners. As such with, a greater number of people entering transactions into the system, the company assumes a much greater risk of mistakes being made due to human error.

Distribution Planning

According to Feigin, Katircioglu and Yao (2009)distribution planning is a method used in business administration for planning orders within a supply chain. Furthermore, Cooke (2013) described Distribution Requirements Planning (DRP) as a time-phased replenishment approach in which inventory status is reviewed and new shipment plans are generated periodically. Forecasting is used to anticipate requirements at the independent demand level (or echelon), while time-phased logic is use to anticipate requirements for upstream inventory echelons (Handfield & Nichols, 2009). Inventory status and planned lead times are therefore used to time order releases so inventory is minimized while still preventing excessive shortages (Ho, 2012). Since inventory is planned throughout the supply chain, based on anticipated demand, DRP systems are considered to be proactive (Smith, 2014). Distribution Planning helps companies optimize the flow of finished goods and components by improving decision-making processes in the areas of distribution requirements/resource planning (DRP) and sales and operations planning (Richards, 2011). Distribution Planning offers fast and flexible simulations of inventory allocation, enabling continuous improvement of DRP strategies and execution (Sipper & Bulfin, 2017).

Organizational Performance

Although the concept of organizational performance is very common in the academic literature, its definition is difficult because of its many meanings. For this reason, there isn't a universally accepted definition of this concept. The concept of organizational performance is based upon the idea that an organization is the voluntarily association of productive assets including human, physical, and capital resources, for the purpose of achieving a shared purpose (Alchain, 2012). Organizations are commonly defined as instruments of purpose. According to March and Sutton (2007) organizations are seen to be coordinated by intentions and goals. An organization cannot be said to be made up of a unitary organ there must be multiple forces coming together for an organization to be called an organization. The main objective of an organization is either profit and growth or profit or growth. Business firms are compared in terms of profit, sales, market share, productivity debt ratio and stock prices. Firms use their various abilities within them to achieve their organizational objectives; this is called organizational performance.

Salem(2003) referred to performance as the outcomes of work because they provide the strongest linkages to strategic goals of the organization. Organizational performance is the extent organizations go to fulfil their organizations' objectives (Gaverea, 2011). March and Sutton (2017) elaborated that explaining variation in performance or effectiveness also one of the more enduring themes in the study of organizations. Organizations are seeking competitive advantage in their various industries; competing in that industry cannot be made possible if the organizational performance is not in order. Good performance in the organization stimulates admiration from other firms as well.

Organizational performance is a set of financial and nonfinancial indicators which offer information on the degree of achievement of objectives and results (Lebans & Euske 2006). Organizational performance is the extent to which organizations, viewed as a social system fulfilled their objectives (Georgopoulos & Tannenbaum, 2007). Organizational performance was defined as an organization's ability to exploit its environment for accessing and using the limited resources (Yuchtman & Seashore, 2007).Organizational performance involves the recurring activities to establish organizational goals, monitor progress toward the goals, and make adjustments to achieve those goals more effectively and efficiently (Moore, 2003).Organizational performance comprises the actual output or results of an organization as measured against its intended outputs or goals and objectives (Howard, 2005).

Organizational Productivity

Organizational productivity is a symbol of efficiency in production activities. It is a measure of efficiency of person, machine and factory in converting inputs into useful outputs. Productivity has been defined in many ways. According to Stevenson (2013) productivity is a measure of the effective use of resources, usually expressed as the ratio of output to input. Roy (2005) defined productivity as human endeavor of effort to produce more and more with less and less of inputs or resources so that the products can be purchased by a large number of people at affordable price. According to Grant (2011) productivity is about effective and efficient use of all resources. In computing productivity, measures can be based on a single output input. When this is considered, it is called partial productivity. Also, when productivity is based on more than one input, then it is called multifactor productivity. More so, when productivity measure is based on more than one input, it is called total Productivity.

Organizational effectiveness

Organizational effectiveness is the concept of how effective an organization is in achieving the outcomes the organization intends to produce (Etzioni, 2014). Organizational

Effectiveness groups in organizations directly concern themselves with several key areas. They are talent management, leadership development, organization design and structure, design of measurements and scorecards, implementation of change and transformation, deploying smart processes and smart technology to manage the firms' human capital and the formulation of the broader Human Resources agenda. The Composition of people which formulate independent business identity for some specific purpose is commonly known as organization and; getting desired outcome within defined resources is treated as effectiveness. Organizational effectiveness is the notion of how effectual an organization is in accomplishing the results the organization aims to generate (Muhammad, et al, 2011). It plays an important role in accelerating organizational development (Bulent et al, 2009). It is the net satisfaction of all constituents in the process of gathering and transforming inputs into output in an efficient manner (Matthew et al, 2015). Organizational effectiveness is defined as the extent to which an organization, by the use of certain resources, fulfils its objectives without depleting its resources and without placing undue strain on its members and/or society (Mary et al, 2016). It is the maximum combined utility of the primary constituents (Matthew et al, 2015). The goal model describes organizational effectiveness in terms of the extent to which an organization attains its objectives. The legitimacy model regards organizational effectiveness in terms of a background evaluation of component preferences for performance and natural limitations on performance from an external environmental perspective (Zammuto, 2012).

The constituency model considers organizational effectiveness “as a set of several statements, each reflecting the evaluative criteria applied by the various constituencies” involved with the organization being evaluated with an emphasis on means criteria (Connolly, 2010). The systems resource model defines organizational effectiveness “in terms of its (the organization’s) bargaining position, as reflected in the ability of the organization, in either absolute or relative terms, to exploit its environment in the acquisition of scarce and valued resources” and how they utilize these resources (Yuchtman, 2007). According to Richard et al. (2009) organizational effectiveness captures organizational performance plus the myriad internal performance outcomes normally associated with more efficient or effective operations and other external measures that relate to considerations that are broader than those simply associated with economic valuation (either by shareholders, managers, or customers), such as corporate social responsibility (Richard et al, 2009). However, scholars of non-profit organizational effectiveness acknowledge that the concept has multiple dimensions (Herman & Renz, 2008); and multiple definitions (Mitchell, 2012). For example, while most non-profit leaders define organizational effectiveness as 'outcome accountability,' or the extent to which an organization achieves specified levels of progress toward its own goals, a minority of non-profit leaders define effectiveness as 'overhead minimization,' or the minimization of fundraising and administrative costs.

Hence, Organizational effectiveness is typically evaluated within non-profit organizations using logic models. Logic models are a management tool widely used in the non-profit sector in program evaluation. Logic models are created for specific programs to link specific, measurable inputs to specific, measurable impacts (Mclaughiin & Jordan, 2010). Typically, logic models specify how program inputs, such as money and staff time, produce activities and outputs, such as services delivered, which in turn lead to impacts, such as improved beneficiary health. Organizational effectiveness, which is the notion of how effectual an organization is in accomplishing its results, is achievable through effective strategic planning and implementation. Strategic planning is a process whereby an organization infuses its aim and objectives into its core or distinctive competencies. Implementation comes in when the organizational culture, teams and resources are properly deployed by managers to achieve the formulated strategic plan. As Porter (1991) emphasized, strategy is a way of integrating the activities of diverse functional departments within a firm, including marketing, production,

research and development, procurement, finance and the like (Porter, 1991). It involves aligning a company and its environment. Environments as well as the firm's own capabilities are subject to change thus, the task of strategy is to maintain a dynamic balance. Strategic planning and implementation which is centered on an organization's distinctive and core competencies results to the achievement of not only a quick result from sales, production and in the market entirely, but also helps organizations to maintain a competitive advantage for some time and shield the company from stiff competition and threats from firms in the same industry and outside the industry.

Logistics Performance

It has always been difficult to define Logistics Performance due to the fact that organizations have multiple and frequently conflicting goals (Chow, Heaver, & Henriksson, 1993). Logistics Performance can be defined as the analysis of both effectiveness and efficiency in accomplishing a given task (Mentzer & Konrad, 2011). Furthermore, Logistics Performance refers to a metric used to quantify the efficiency and or effectiveness of an action (Neely, Gregory, & Platts, 2005). This topic continues and LP has been seen as multi-dimensional and is defined as the degree of efficiency, effectiveness ad differentiation associated with the accomplishment of activities. According to Palsson (2009) logistics performance is the logistics value of using real-time tracking data, or on dependent mechanisms, i.e. mechanisms determining the logistics value. The efficiency and effectiveness of the logistics operation has a considerable influence not only on the business performance of manufacturers but also on the customer's perception of the quality of the products and services provided by the plant (Kenyon & Meixell, 2012). Furthermore, many studies have shown that the success of any firm basically depends on how efficiently it handles it logistics department (Steffanson, 2006; Ramdas, 2003).

Theoretical Review

Resource Based Theory

The resource-based theory was propounded by Wernerfelt, (1984). Resource based view (RBV) receives much attention in explaining Warehouse management. The key concepts of RBV are resources, capabilities, and strategic assets (Barney 1991). RBV argues that variance in firm performance can be explained by strategic resources, such as core competence (Prahalad & Hamel, 1990), dynamic capability (Amit & Schoemaker, 1993; Teece et al., 1997), and absorptive capacity (Cohen & Levinthal, 1990). Firms that combine resources in a unique way may achieve an advantage over their competing firms who are unable to do so (Dyer & Singh, 1998). By owning scarce resources and assets and excelling in core competencies and capabilities, firms can reach a market advantage and gain a sustained competitive advantage (Knudsen, 2003). RBV claims that electronic integration by specific asset investments enables partnering firms to build competitive advantage because of their rare, valuable, non-substitutable, and difficult-to-imitate nature (Barney, 1991; Knudsen, 2003). Resource complementarity or the need for particular resources is another reason for supply chain collaboration (Knudsen, 2003). By investments in relation-specific assets, substantial knowledge exchange, combining complementary and scarce resources or capabilities, supply chain collaboration can create unique products, services or technologies (Knudsen, 2003). Rents are generated through synergistic combination of assets, knowledge, or capabilities (Das & Teng, 2000). The embeddedness of partnering firms' relational assets and the causal ambiguity are difficult for their competitors to copy (Hansen et al., 1997; Lorenzoni & Lipparini, 1999; Jap, 2001). Supply chain collaboration also enables firms to concentrate on their core competencies, which increase firm specific skills and realize economies of scale and

learning effects, thereby improving their competitive positions (Barney 1991; Park et al. 2004; Verwaal & Hesselmans, 2004).

Methodology

Research Design

The descriptive survey research design was adopted in this study because many variables were measured at the same point in time, and structured questionnaire was used.

Population of the study

The total population of staff in Nigerian Breweries Plc., Aba is 3,195 employees, total population of staff in Sona Breweries, Umuahia is 143 employees and the total population of staff in Guinness Nigeria plc, Aba is 1,332 (Wikipedia, 2018; Human Resource Department Sona Breweries, 2024). Consequently, the entire population for the study was 4,670.

Sample Size

The purposive sampling was used to select 450 employees using Cochran sampling determination formula, using non-probability method in Nigerian Breweries Plc., Aba, Sona Breweries, Umuahia and Guinness Nigeria plc, Aba, Abia State.

$$SSD = \frac{Z^2 p(1-p)}{e^2}$$

Where:
SSD =sample size determination
Z=1.96 (for 95% confidence level)
p=proportion of the population picking a choice (p=0.5 in this case as this yields the maximum possible sample size required)
e = confidence interval (0.05 giving an interval of ±5).

$$SSD = \frac{1.96^2 \times 0.5(1-0.5)}{0.05^2}$$

= 450

Sample size distribution

Companies	Population	Proportion	Sample Distribution
Nigeria Breweries Umuahia	3,195	59.3%	253
Guinness Nigeria Aba	1,332	33.3%	157
Sona Breweries Umuahia	143	12.7%	40
Total	**4,670**	**100**	**450**

Source: Author's Computation, 2024

Data Collection Procedure, Questionnaire Design and Instruments

A self-administered questionnaire was established and employed in this study data collection. The pilot study was carried out in Consolidated Breweries. it was done on a partial scale, which involves administering 10% of the selected sample of the questionnaire to check for the validity and reliability of the instrument. The validity was done with a focus on face, content and construct phases. The face validity was done by giving out copies of the questionnaire to the supervisor. The result of the pilot study was subjected to the test-retest method to ascertain the level of reliability of the instrument. The Cronbach reliability test was adopted to ascertain the degree of internal consistency of the constructs. The reliability result is presented in the table below:

Reliability Result

Construct	No. of items	Cronbach Alpha Coefficient
Warehouse costs	5	0.723
Stock control	5	0.712
Distribution planning	5	0.747
Organizational productivity	5	0.728
Organizational effectiveness	5	0.781
Logistics performance	5	0.722

Source: Author's extraction from SPSS, 2024

Method of Analysis

The descriptive statistics (mean and standard deviation) were used to interpret statements the items on the questionnaire. The regression analysis was utilized to estimate the impact of strategic management proxies on organizational performance indicators. The analysis of data was carried out on Statistical Package for Social Science (SPSS version 23).

Data Analysis, Test of Hypothesis and Discussion of Results

Gender Distribution of Respondents

Gender	Frequency	Percentage
Male	298	66.2%
Female	152	33.7%
Total	**450**	**100.0%**

Source: Author's Computation from Field Survey 2024.

Table 3 showed the gender distribution of the respondents. Majority of the respondents, which forms 66.2% of the total respondents were male. The remaining 33.7% of the respondents were females.

Age Distribution of Respondents

Age	Frequency	Percentage
Below 30 years	156	34.7%
30-50 years	221	49.1%
Above 50 years	73	16.2**%**
Total	**450**	**100.0%**

Source: Author's Computation from Field Survey 2024.

Table 4 showed the age distribution of respondents. 156(34.7%) of the respondents are below 30 years of age. 221(49.1%) of the respondents are between 30-50 years of age and 73(16.2%) of the respondents are above 50 years of age.

Academic Qualification of Respondents

Academic Qualification	Frequency	Percentage
OND/NCE	55	12.2%
HND/B.Sc.	271	60.2%
PGD/M.Sc.	97	21.6%
PhD	27	6.0%
Total	**450**	**100.0%**

Source: Author's Computation from Field Survey 2024.

Table 5 showed the distribution of the academic qualification of respondents. 55(12.2%) of the respondents are OND/NCE holders, 271(60.2%) of them, which constitutes

the majority, are HND/B.Sc. holders, 97(21.6%) of them are PGD/M.Sc. holders and 27(6.0%) of them are PhD holders.

Professional Qualification of Respondents

Professional Qualification	Frequency	Percentage
None	83	18.4%
ACA	89	19.8%
ACCA	71	15.8%
ACIB	56	12.4%
MBA	70	15.6%
Others	81	18.0%
Total	**450**	**100.0%**

Source: Author's Computation from Field Survey 2024

Table 6 showed the distribution of the professional qualification of respondents. 83(18.4%) of the respondents do not possess any professional qualification, 89(19.8%) of them are chartered accountant, 71(15.8%) of them are certified chartered accountant, 56(12.4%) are chartered bankers, 70 (15.6%) of are MBA (Masters of Business Administration) holders and 81(18.0%) of them have other professional certificates.

Level/Position of Respondents

Level	Frequency	Percentage
Junior Staff	187	41.6%
Senior Staff	179	39.8%
Management Staff	84	18.6%
Total	**450**	**100.0%**

Source: Author's Computation from Field Survey 2024

Table 7 showed the position distribution of respondents. 187(41.6%) of the respondents are junior staff, 179 (39.8%) of them are senior staff and 84(18.6%) of them are management staff.

Work Experience of Respondents

No. of Years	Frequency	Percentage
Below 10 years	225	50.0%
11-20 years	121	26.9%
Above 20 years	104	23.1%
Total	**450**	**100.0%**

Source: Author's Computation from Field Survey 2024.

Table 8 showed the work experience distribution of respondents. 225(50.0%) of the respondents had a work experience less than 10 years, 121(26.9%) of them had a work experience between 11-20 years and 104 (23.1%) of them had a work experience above 20 years.

Respondents' Opinion on WAREHOUSE COSTS

S/N	Items of Warehouse Costs	N	Mean	Std. Dev	Remark
1.	Building a warehouse is expensive	450	3.28	0.42	Effective
2.	Renting a warehouse is expensive	450	3.16	0.41	Effective
3.	The cost of property rent in Lagos is high	450	3.29	0.54	Effective
4.	Warehousing costs significantly affect our profit	450	3.07	0.83	Effective
	Warehouse costs serve as a hindrance to our productivity	450	3.12	0.66	Effective
	Cluster	**450**	**3.19**	**0.58**	**Effective**

Source: Author's Computation from Field Survey 2024.

Table 9 shows the opinions of respondents on the monitoring and employee commitment in ten areas. It should be noted that the benchmark mean-point is 2.50. Items whose mean exceeded the benchmark of 2.50 were considered effective and that whose mean is below 2.50 was considered ineffective. A look at table 4 showed that all the ten items were effective. This implies that the respondents agreed that warehouse costs have been effective in the areas of performance. The cluster mean of 3.19 indicates that all the respondents collectively agreed that their warehouse costs has been effective in achieving desired commitment.

Respondents' Opinion about STOCK CONTROL

S/N	Items	N	Mean	Std. Dev	Remark
1.	We ensure that all out inventory is well accounted for	450	3.22	0.63	Accepted
2.	We adopt technology when it comes to our stock control operations	450	3.20	0.67	Accepted
3.	Our employees in charge of stock control rarely make errors when accounting for the stock available	450	3.19	0.71	Accepted
4.	We have never experienced challenges due to poor stock control	450	3.31	0.34	Accepted
5.	Excellent stock control has improved our effectiveness as an organization	450	3.17	0.47	Accepted
	Cluster		**3.20**	**0.66**	**Accepted**

Source: Author's Computation from field survey 2024.

Table 10 supplied information on the opinions of respondents about the efficacy of stock control in their organization. The mean scores of the items are above the cut-off mark of 2.50 that was regarded as acceptable limiting as indicated by the researcher. Therefore, all the items under stock control were considered acceptable. The cluster mean of 3.20 indicates that the respondents unanimously agreed that the stock control in their organization is potent.

Respondents' Opinion about DISTRIBUTION PLANNING

S/N	Items	N	Mean	Std. Dev	Remark
1.	To our excellent warehouse management, we are able to adequately plan our distribution	450	3.19	0.75	Accepted
2.	All our distribution planning has been carried out effectively	450	3.31	0.57	Accepted
3.	Warehouse management has ensured we have every angle covered in terms of distribution planning	450	3.39	0.49	Accepted
4.	Distribution planning system is excellent	450	3.28	0.62	Accepted
	Cluster	**450**	**3.28**	**0.64**	**Accepted**

Source: Author's Computation from Field Survey 2024

Table 11 provided information on the opinions of respondents about the distribution planning in their organization. All the items have mean-scores above the benchmark of 2.50. Therefore, all the items under distribution planning were considered acceptable. The cluster mean of 3.28 connotes that the respondents jointly agreed that distribution planning is functional to performance in their organization.

Respondents' Opinion on ORGANIZATIONAL PRODUCTIVITY

S/N	Items	N	Mean	Std. Dev	Remark
1.	We churn out significant number of products everyday	450	3.17	0.60	Effective
2.	We have the largest number of outputs produced daily in our industry	450	3.11	0.82	Effective
3.	We always meet our target number of outputs to be produced daily	450	3.31	0.47	Effective
4.	We have experienced growth in terms of the expansion of our business operations	450	3.18	0.65	Effective
	Cluster	**450**	**3.19**	**0.58**	**Effective**

Source: Author's Computation from Field Survey 2024.

Table 12 provided information on the opinions of respondents about the organizational productivity in their organization. All the items have mean-scores above the benchmark of 2.50. Therefore, all the items under organizational productivity were considered acceptable. The cluster mean of 3.28 connotes that the respondents jointly agreed that organizational productivity is functional potent.

Respondents' Opinion about ORGANIZATIONAL EFFECTIVENESS

S/N	Items	N	Mean	Std. Dev	Remark
1.	We are an organization that does things at the right time	450	3.16	0.61	Accepted
2.	We are an organization known for its excellence	450	3.22	0.55	Accepted
3.	Our supply chain is effective	450	3.25	0.61	Accepted
4.	We are an organization that distributors consider effective	450	3.11	0.77	Accepted
	Cluster		**3.20**	**0.66**	**Accepted**

Source: Author's Computation from Field Survey 2024.

Table 12 supplied information on the opinions of respondents about the efficacy of organizational effectiveness. The mean scores of the items are above the cut-off mark of 2.50 that was regarded as acceptable limiting as indicated by the researcher. Therefore, all the items under organizational effectiveness were considered acceptable. The cluster mean of 3.20 indicates that the respondents unanimously agreed that their organizational effectiveness is potent.

Respondents' Opinion about LOGISTICS PERFORMANCE

S/N	Items	N	Mean	Std. Dev	Remark
1.	We are never late in carrying out distribution	450	3.22	0.63	Accepted
2.	Our customers never complain of late deliveries	450	3.20	0.67	Accepted
3.	We never rely on 3PL to carry out our deliveries	450	3.19	0.71	Accepted
4.	Our logistics performance is excellent	450	3.31	0.34	Accepted
	Cluster		**3.20**	**0.66**	**Accepted**

Source: Author's Computation from Field Survey 2024.

Table 4.8 supplied information on the opinions of respondents about the efficacy of logistics performance in their organization. The mean scores of the items are above the cut-off mark of 2.50 that was regarded as acceptable limiting as indicated by the researcher. Therefore, all the items under logistics performance were considered acceptable. The cluster mean of 3.20 indicates that the respondents unanimously agreed that the logistics performance in their organization is potent.

Test of Hypotheses

The Pearson correlation coefficient is employed to test the two stated hypotheses. Pearson correlation coefficient is used to ascertain the degree of linear interrelationship between two or more variables.

Hypothesis One

H_0: There is no significant effect of warehouse costs on the organizational profitability of selected brewery companies in Abia State

H_1: There is significant effect of warehouse costs on the organizational profitability of selected brewery companies in Abia State**.**

Correlation between Warehouse Costs and Organizational Productivity

		Organizational Productivity	Warehouse Costs
Organizational Productivity	Pearson	1.00	.772
	Correlation sign. (2-Tailed)		.015
	N	450	450
Warehouse Costs	Pearson	.772	1.00
	Correlation sign. (2-Tailed)	.015	
	N	450	450

Source: SPSS Result Output, 2024

The table above showed the correlation between organizational productivity and warehouse costs. The results showed that there is 77.2% positive correlation between organizational productivity and warehouse costs. This implies that organizational productivity and warehouse costs are strongly correlated. Since the probability value of the correlation coefficient, which is 0.015, is less than the critical 0.05 at 5% significance level, the alternative hypothesis (H_1) is accepted that there is significant effect of warehouse costs on the organizational productivity of selected brewery companies in Abia State

Hypothesis Two

H_0: There is no significant relationship between stock control and organizational effectiveness of selected brewery companies in Abia State

H_1: There is significant relationship between stock control and organizational effectiveness of selected brewery companies in Abia State.

Correlation between Stock Control and Organizational Effectiveness

		Organizational Effectiveness	Stock Control
Organizational Effectiveness	Pearson	1.00	.896
	Correlation sign. (2-Tailed)		.002
	N	450	450
Stock control	Pearson	.896	1.00
	Correlation sign. (2-Tailed)	.002	
	N	450	450

Source: SPSS Result Output, 2024

The table above showed the correlation between organizational effectiveness and stock control. The results showed that there is 89.6% positive correlation between organizational effectiveness and stock control. This implies that organizational effectiveness and stock control are strongly correlated. Since the probability value of the correlation coefficient, which is 0.002, is less than the standard 0.05 at 5% significance level, the alternative hypothesis (H_1) is

accepted that there is significant relationship between stock control and organizational effectiveness of selected brewery companies in Lagos state.

Hypothesis Three

H_0: There is no significant relationship between distribution planning and logistics performance of selected brewery companies in Abia State

H_1: There is significant relationship between distribution planning and logistics performance of selected brewery companies in Abia State.

Correlation between Distribution Planning and Logistics Performance

		Logistics Performance	Distribution Planning
Logistics Performance Pearson		1.00	.772
	Correlation sign. (2-Tailed)		.015
	N	450	450
Distribution Planning Pearson		.772	1.00
	Correlation sign. (2-Tailed)	.015	
	N	450	450

Source: SPSS Result Output, 2024

The table above showed the correlation between logistics performance and distribution planning. The results showed that there is 77.2% positive correlation between logistics performance and distribution planning. This implies that logistics performance and distribution planning are strongly correlated. Since the probability value of the correlation coefficient, which is 0.015, is less than the critical 0.05 at 5% significance level, the alternative hypothesis (H_1) is accepted that there is significant relationship between distribution planning and logistics performance of selected brewery companies in Abia State

Discussion of Findings

The results of the correlation analysis showed that there is positive and significant relationship between warehouse costs has significant effect on organizational profitability ($r=0.772$; $p<0.05$)., Also, a positive and significant relationship exists between stock control and organizational effectiveness ($r=.896$; $p<0.05$)., Furthermore, a positive and significant relationship exists between distribution planning and logistics performance ($r=.896$; $p<0.05$). This implies that warehouse managements are crucial factors and strong predictors of performance of selected brewery companies. The result is consistent with the findings of Samuel and Mary (2015) that adequate warehouse management reduces the incidence of loss and ensures organization becomes effective in its storing and operations. The result is also consistent with the findings of Badara (2013) that effective warehouse management raise the effectiveness of agencies. The result conforms to the findings of Odunayo (2014) that effective warehouse management reduces the risks of poor performance and brings about effectiveness in the areas of productivity in Nigerian brewery companies.

Summary of findings

1. The results of the correlation analysis showed that there is positive and significant relationship between warehouse costs has significant effect on organizational productivity

(r=0.772; p<0.05)., 2. A positive and significant relationship exists between stock control and organizational effectiveness (r=.896; p<0.05).
3. A positive and significant relationship exists between distribution planning and logistics performance (r=.896; p<0.05). This implies that warehouse managements are crucial factors and strong predictors of performance of selected brewery companies

Conclusion and Recommendation

The study concluded that warehouse management has significant effect on the performance of selected brewery companies in Nigeria. Based on the findings of the study, the following policy recommendations are suggested for enhanced performance through warehouse management.

1. Computerizing warehouse management should be employed by the management of every brewery companies.
2. Brewery companies should ensure their warehouse are properly checked daily by the store keeper or store manager to safe the inventory from cracking, falling on each other or spoiling.
3. Warehouse managers should be adequately remunerated through attractive compensation packages after employed in order to avoid temptation by the employees to stealing from the firm.
4. Standard personnel and recruitment policies should be formulated and maintained for smooth warehouse management.

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