The Influence of Inventory Management Practices on the Performance of Manufacturing Enterprises

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Abstract:

Purpose: This study assessed the effect of inventory management on the performance of manufacturing enterprises.

Design/Methodology/Approach: The study used a descriptive research design and adopted convenience sampling techniques. The population of the study was made up of 317 staff of Nutrifoods construction limited. The sample size of the study was 76 respondents. The study employed Questionnaire as a Data collection tool and analyzed data gathered using inferential analysis.

Findings: The study results showed that inventory management policies used were not effective. The study discovered that there are various inventory management techniques adopted in the organization, namely ABC analysis, just in time technique, Material requirement planning method, Economic order quantity method, and Minimum safety stock, with Just in time inventory management technique being the most used.

Practical implications: The research focused on identifying and assessing the effectiveness of inventory management policies used, ascertaining the nature of the relationship between inventory management procedure and adequate inventory supply, and evaluating the effect of inventory management procedure on the performance of an organization.

Originality value: The study concludes that the nature of the relationship between inventory management procedure and adequate inventory supply is a significant strong positive relationship and that inventory management procedure has a positive effect on how well an organization performs.

Keywords: Inventory, inventory management, performance, just in time, manufacturing.

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1. Introduction

Inventory is one of a company's most important assets, a shortage of inventory may be damaging in many industries, including retail, food services, and manufacturing, thus having a robust inventory management system is critical for every organization. It assists in keeping track of all goods and determining exact prices, and it also helps in managing unexpected variations in demand without jeopardising customer experience or product quality.

According to Okoh, Mgbonyebi, and Umeadi (2018), inventory management encompasses all efforts implemented to ensure that customers have the required product or service. It coordinates the purchasing, production, and distribution functions in order to meet the marketing and organisational needs of providing the product to customers.

Inventory management is largely concerned with determining the size and location of stocked items. Inventory management also includes managing the replenishment lead time, replenishment of items, returns and defective goods, and demand forecasting, as well as inventory carrying costs, asset management, physical inventory, available physical space, and demand.

Mathuva (2019), mentioned that manufacturers can keep track of the inventory they have on hand, including its location and quantity, with the aid of effective inventory management, and the best inventory management tools will notify these companies the instant particular things are running low on stock, are about to lose their warranties, or are about to expire. Additionally, firms that employ an effective inventory management system have access to a wealth of information regarding the historical usage of their inventory.

Manufacturers can use data from inventory management records to make informed decisions about future production amounts, avoiding over- or underproduction. According to Rajeev (2017), a lack of inventory management skills has prevented manufacturing enterprises from being formidable competitors in the manufacturing industries. Takim (2020) added that poor inventory records have cost a business 10% of its profits. Various researchers have done studies on the nature of inventory management systems.

For instance, Priniotakis and Argyropoulos (2020) investigated various mechanisms that will lead to the total reduction of inventory in Ghanaian manufacturing firms; the study investigated some fundamental concepts and techniques for inventory classification, inventory control, avoiding stockouts, and increasing customer satisfaction; it also evaluated the reorder point as an effective indicator for triggering production replenishment and proposed a simple method for prioritising production orders. Yankah *et al.* (2022) also examined Inventory Management and the

Performance of Listed Manufacturing Firms in Ghana, their findings shows that stock management is a factor in the success of manufacturing companies.

Although the findings have contributed to the development of some solutions to the problem of production interruptions and stock outs, the study has not revealed the effectiveness of these techniques in resulting in an adequate supply of goods. This study analysed the new conventional inventory management policies used, their effectiveness, and how they relate to and contribute to goods being adequately supplied. Prempeh (2019) revealed the impact of efficient inventory management on the profitability of Ghanaian firms.

The study results indicated that efficient management of raw material inventory is a major factor to be considered by Ghanaian manufacturers in enhancing their profitability. This study focuses on the manufacturing sector as it relates to the importance of inventory management on its organisational performance. It uses descriptive methodology and context to investigate its importance and collects data directly from the company to get first-hand information.

Makafui and Obiri-Yebaoh (2018) showed the effect inventory management has on the profitability of a hospital and recommended that the hospital should ensure that losses resulting from inventory shrinkage related to medicines are reduced. Nevertheless, the findings were associated with a hospital, whose stock is of a different nature; therefore, there is a likelihood that the methods used to manage inventory are much different from those used by a manufacturing company such as Nutrifoods.

Ashok (2019) showed the relationship between inventory management and uncertain demand and investigated how erratic demand affects inventory management in the fast-moving consumer goods industry (FMCG). The study recommended that inventory management be given the attention it deserves if the company is to remain competitive, demand-responsive, and cost-effective.

The research, however, focused on inventory management for unexpected demand, whereas this study measures the relationship between the procedures of inventory management and adequate supply. This study further shows the intensity of the relationship and whether it is positive or negative.

Also, some other researchers, such as Ogbo, Onekama, and Ukpere (2019), and Muchaendepi *et al.* (2019), worked on the inventory management strategies used by the SMEs. The researchers explored a few strategies used to control stock, their effects, and their impact without looking at the effectiveness of inventory management systems. The study also focused on SMEs without focusing on the manufacturing of goods. Dorothy (2019) investigated the effect of inventory management practises on organisational performance.

The outcome of the study depicts that inventory management has an effect on organisational performance in public health institutions in Kenya; however, the study was not done in the Ghanaian context and did not consider the manufacturing sector.

The studies of Ogba *et al.* (2019) and Muchaendepi *et al.* (2019) found that inventory management is crucial to organisational performance, while the study of Dorothy (2019) suggested that inventory management has an effect on performance. Despite the findings of the study, it is worth mentioning that the findings lacked the capacity to depict the effectiveness and correlation between inventory systems and performance.

To make up for this lapse, this study focuses on checking for the efficiency of inventory management in organisational operations, investigating the inventory management used and its significance on organisational performance, and establishing the nature of the relationship inventory managers hold with an adequate stock supply.

Based on the above research gaps, the study seeks to identify and assess the effectiveness of inventory management policies, evaluate the inventory management techniques adopted by the organisation to improve organisational performance, ascertain the nature of the relationship between inventory management procedures and adequate inventory supply, and finally evaluate the effect of inventory management procedures on the performance of an organization.

2. Literature Review

Inventory management is the process of keeping track of non-capitalized assets and stock items. These things are often called "inventory." Inventory management, a part of supply chain management, controls the movement of products from producers to warehouses and from these locations to points of sale. Inventory management requires keeping a detailed record of each new or returned item as it comes into or goes out of a warehouse or point of sale.

According to Bruwer (2015), inventory management involves the creation and administration of policies, methods, and procedures that will reduce total cost in relation to inventory decisions and functions, including customer service demands, production scheduling, purchasing, and tariff. Therefore, choosing the right amount of inventory to hold is the main component of inventory management. Any concern that has too little or too much inventory will suffer since the cost of the inventory as a whole will go up.

Inventory management is a tool that can be used by both small and large enterprises to monitor their product movement. Using the right inventory management approach can result in supplying the proper commodities at the proper amount, location, and

time. Inventory management will control operating costs and provide better understanding. Ferencikova (2018) added that inventory management has a significant impact on a company's performance because it can affect all three key competitive factors: quality, time (or flexibility), and costs. Inventory management becomes more difficult as the product portfolio becomes more complex.

In accounting terms, inventories are considered assets. However, inventories have a negative impact on company performance because they consume financial resources that could be used for more important business activities.

2.1 Theoretical Framework

The just-in-time (JIT) inventory system is a management strategy that aligns raw-material orders from suppliers directly with production schedules, and it refers to a set of practises and tactics aimed at satisfying the market by producing the products needed, when they are needed, and in the required quantity and quality.

In the JIT model described by Eker (2018), the manufacturer has total control over the demand-pull-based manufacturing process. They can immediately increase production of a product that is in high demand and decrease production of those that are in low demand in order to meet client demand. As a result, the JIT approach is adaptable and able to meet the needs of the constantly shifting market.

According to Vrat (2019), his research claims that the "JIT or zero-inventory system" is an idealised model of inventory management wherein we are able to offer whatever material is necessary, wherever required, and whenever requested JIT with 100% supply assurances without having any inventory on hand. Less working capital is required to finance procurement because only essential stocks are acquired.

Just-in-time theory also reveals that an organization's return on investment would be good as a result of the lower amount of stock maintained in its inventory. The "right first time" notion, which refers to performing tasks correctly the first time, is used in just-in-time models to cut down on inspection and rework expenses. As a result, the business needs to invest less money; less money is needed to invest in fixing mistakes, and more money is made when an item is sold. If JIT is to be implemented successfully, there must be a high degree of coordination and cooperation between the supplier and manufacturer and among different production centers.

This idea will be used to find out what the link is between good inventory management and good material handling equipment. Queuing theory was first introduced in the early 20th century by Danish mathematician and engineer Agner Krarup Erlang. The mathematical study of standing in lines or queues is known as queuing theory. Over the past few decades, academics have paid close attention to studies on queueing systems incorporating inventory control. Customers who need service enter the service facility one at a time under this arrangement.

An item from the inventory is required to fulfil the customer service. According to Rashid *et al.* (2020), a served customer exits the system immediately, and the on-hand inventory decreases by one at the time-of-service completion. The outside supplier provides the inventory. This is known as a "queueing inventory" system.

The theory allows for the derivation and calculation of a number of performance measures, such as the average wait time in the system or queue, the anticipated number of people waiting or receiving service, and the likelihood of running into the system in specific states, such as empty, full, with an available server, or requiring a certain amount of time to be served. Saffari (2019) also added that in typical inventory models, if there is enough on-hand inventory, each arriving demand is met immediately, and the inventory level decreases instantly.

Queueing systems with inventory are more general and realistic than traditional inventory models. As a result, it is acceptable to assume that any inventory system has a section that is solely dedicated to keeping track of inventory as well as a service or production area that may be effectively depicted by a queueing system.

In addition, queueing systems with inventory can also be used to analyse supply chains; each segment of the chain is a complex integrated production-inventory system that can be captured adequately by a queueing system with inventory (Schwarz *et al.,* 2019).

2.2 Empirical Review

Oluwaseyi *et al.* (2017) also looked at how important inventory management is to the operation of a business. The paper's main goal was to define the role of inventory management in logistics so that it could be used to make improvements in the future. The study had a population of 160 and a sample size of 87. It was a descriptive research design.

Data was collected for the study through a questionnaire and analysed using a frequency distribution analysis of the descriptive statistic. The study found that the advancement of techniques and management principles improves moving loads, delivery speed, service quality, operation costs, facility utilization, and energy savings. The findings also showed that inventory and logistics systems are inextricably linked.

Logistics management requires inventory management to carry out its functions, and a successful logistics system can help to improve the warehouse environment and operational activities. Inventory plays an important role in the logistics system, and its activities are visible at various stages of the logistics process. A powerful logistics strategy cannot fully utilise its capacity unless inventory is linked to other logistics activities.

Munyao *et al.* (2018) investigated the impact of inventory management practises on production department performance in manufacturing firms. The study aimed at examining the role of inventory management practises in the performance of the production department. The study sought to ascertain the inventory management techniques employed by manufacturing firms in Mombasa County, as well as the effectiveness of their inventory management practices.

It also determined the level of performance of the production departments of manufacturing firms in Mombasa County and finally determined whether computerised inventory management influences the performance of the production department. The study adopted a descriptive research design. The target population was textile, rolling mill, and food and beverage manufacturing firms in Mombasa County. A survey was conducted using stratified random sampling. Out of 150 manufacturing firms, a sample size of 45 manufacturing firms was used.

A questionnaire was used as a data collection instrument. One questionnaire was issued at random to one respondent from each of the 45 manufacturing firms included in the sample. The reliability of research instruments was tested using the split-half reliability test.

The study found that manufacturing firms used various inventory management techniques, such as action level methods, just-in-time techniques, periodic review techniques, material requirement planning, and economic order quantity. The study also found that, despite the fact that MRP-1 was most effective in contributing to the performance of the production department, most organisations in the manufacturing industry used action-level methods.

Richard (2020) investigated the impact of various inventory management practices on the operational performance of Ghanaian manufacturing firms. A descriptive survey design was used for the study. The study was conducted among manufacturing firms in Ghana's metropolises of Accra, Tema, and Kumasi between November 2019 and February 2020. Methodology: A total of 152 procurement and operations managers and officers from 246 registered manufacturing firms with the Association of Ghana Industries were randomly selected for the study.

The study used structured questionnaires to collect primary data, which was then analysed using both descriptive and inferential statistical tools such as mean, standard deviation, and ordinary least squares regression. Using 114 valid responses, the study discovered that manufacturing firms in Ghana prefer strategic supplier partnerships (M = 3.63) and activity-based costing (M = 3.56) while they prefer just-in-time (M = 3.06).

The ordinary least squares regression analysis revealed that the following inventory management practises are significantly and positively associated with operational performance, strategic supplier partnership (P =.000), activity-based costing (P

=.025), vendor managed inventory (P =.008), economic order quantity (P =.19), material resource planning (P =.000), and just-in-time (P =.009). The study concluded that inventory management practices, particularly strategic supplier partnerships, play significant roles in improving the operational performance levels of manufacturing firms in developing economies, particularly Ghana.

According to Priniotakis (2020), who worked on inventory management concepts and techniques, inventory management has evolved into a critical component of supply chain management, with significant implications for a company's performance. The textile industry is no different. Traditional decision-making approaches based on manager instincts and hunches are no longer sufficient in today's increasingly competitive environment.

The mindset is common in small to medium-sized family-owned textile businesses. The paper discusses some fundamental concepts and techniques for inventory classification, inventory control, avoiding stock outs, and increasing customer satisfaction. It also shows the significance of forecasting demand and employs the root mean square error (RMSE) as a useful measure of forecast error, which later becomes a key driver for inventory management. It revealed that Service Level (SL) is a performance metric and stresses the significance of Safety Stock (SS).

Finally, it evaluates the reorder point (ROP) as an effective indicator for triggering production replenishment and proposes a simple method for prioritising production orders. It was concluded that the methods and tools used could add significant business value.

Holding the appropriate amount of inventory can improve business performance by decreasing response time to customer demand, resulting in higher customer satisfaction. When deciding how much inventory to keep, textile managers and business owners should weigh and balance the trade-offs and make a strategic decision based on the described proven concepts and techniques.

Ndivhuwo (2018) worked on the relationship between inventory management and uncertain demand. It also examines the effects of erratic demand on inventory management in the fast-moving consumer goods industry (FMCG). The study was descriptive in nature and was carried out using quantitative research methods. A survey questionnaire was used to collect primary data from five FMCG companies in the Johannesburg manufacturing industry.

This study enlisted the participation of 255 people. Following hypothesis testing, it was discovered that there is a positive and significant relationship between inventory management and uncertain demand (r = 0.486, p 0.05). This implies that when levels of uncertainty are low, inventory management will be better and more controlled, and inventory management should link inventory to customer demand.

There is a significant relationship between inventory management and uncertain demand, implying that poor inventory management will result in unsatisfied demands, organisations will have either too much or too little on hand, and the organisations will fail. Inventory management should be given the attention it deserves in order for the company to remain competitive, flexible for demand, and cost-effective. Inventory is difficult to manage and control, and inventory managers struggle to know when and how much to order.

Ashok (2019) also worked on the relationship between inventory management and profitability: an empirical analysis of Indian cement companies. The purpose of the paper was to investigate the inventory management practises of Indian cement companies and their impact on working capital efficiency. The dependent variable, gross operating profit, was used to calculate profitability, and the relationship between inventory management and profitability was investigated for a sample of five top Indian cement companies from 2001 to 2010.

The study used regression analysis to determine the impact of the inventory conversion period on gross operating profit while controlling for the current ratio, firm size, and financial debt ratio. The findings showed that the inventory conversion period has an inverse relationship with firm profitability, i.e., as ICP days increase, firm profitability decreases and vice versa. It was discovered that a company's profitability, as measured by its gross operating profit, has a negative relationship with its financial debt ratio.

This meant that as the financial debt ratio was reduced, profitability increased. Furthermore, the relationship between firm size and gross operating profit in this study was positive, indicating that firm size increases profitability. The current ratio had a negative relationship with the gross operating profit.

Oballah (2015) looked at how inventory management practises affected how well Kenyan public health institutions worked as a whole. The specific goals were to determine the impact of inventory shrinkage, inventory investment, inventory turnover, and inventory record accuracy on Kenyatta National Hospital's organisational performance using a descriptive case study design. SPSS was used for statistical analysis. The target population for this study included 2 senior store managers, 10 stock controllers, 10 pharmacists, 15 stores and supplies officers, 10 senior store assistants, 12 store assistants, and 15 store clerks, making a total of 74 respondents.

The research study used the census method for the study due to the limited number of respondents, which allowed for the whole population to be included in the study. The study found that inventory investment and inventory record accuracy have a positive impact on organisational performance, whereas inventory shrinkage has a negative impact on Kenyatta National Hospital's organisational performance. As a result, the study recommends that the hospital reduce losses due to inventory

shrinkage related to medicines. This can be accomplished by ensuring that inventory records are kept accurately. The hospital must manage its finances and inventory investment by ensuring that the right amount of stock is kept at all times.

According to Makafui *et al.* (2018), who worked on the effectiveness of stock control in the pharmaceutical industry, the main objective was to know how effective stock control is in an organization's operation. Inventory control has become one of the ways that businesses compete with each other all over the world.

Most businesses even use sophisticated computer models to manage their stocks. The population under consideration in the study is the entire staff of Kojack Pharma Limited, Takoradi. A sample of staff, including the manager, was selected for the study. The random sampling technique was used for clients, and the purposive sampling technique was used for staff and management. The work revealed that a firm's strategic viability is now dependent on its ability to operate with significantly low stocks.

Innovations in stock control, aided by technology, have the potential to restructure entire industries. Recent technological advancements have simplified and improved the stock control system. Pharmaceutical companies' main source of working capital is their entire stock. As a result, inefficiency in its stock control systems may force the company into liquidation. Stock control activities in pharmacies range from ensuring that there is an adequate selection of different types and sizes of drugs available in stores to ensuring that drugs are replaced on time.

Effective stock control is known to reduce costs and boost business growth. The issue is determining the extent to which stock management can reduce costs while ensuring business growth. It is recommended that the company maintain its way of keeping records that is both on the computer and in the records book since this will eliminate the problem of having to access records of stock when the computer develops a fault.

Takim (2020) looked at the Flour Mills Company in Calabar, Nigeria, as a case study to study how to improve inventory control and management in the manufacturing industry. The researcher identifies some of the obstacles to effective inventory management and control. Although effectiveness was defined in this study as the ability to meet stated inventory levels, it was measured in terms of financial measures such as inventory turnover.

The primary source of information gathered for the study was primary data collected through well-structured questionnaires and personal interviews. The obtained data was analysed qualitatively, using descriptive statistics to quantify the level of frequency and determine the percentages of respondents and weighted mean scores. The author thought this method was more appropriate and convenient because it helped establish the research objectives.

The findings showed that the formulation of solutions to the problems of lead time of delivery or delay in supply of goods or materials, interruption in production, running out of goods or materials during production, and the quandary of when to order and how much to order, as they affect Nigeria's manufacturing industries, The study concluded that it is very essential and obligatory to judge inventory performances at the level at which decisions are made, and recommendations were made for the best practises that would guarantee efficient stock control, customer happiness, and customer retention.

3. Materials and Methods

The study used a descriptive research design to find out more about the variables and figure out how they were connected. Descriptive statistics claim to discover and measure cause and effect or relationships between variables; the descriptive design was chosen for this study because of its ability to ensure bias minimization and evidence reliability maximisation (Cooper and Schindler, 2006).

Various researchers, such as Richard (2020), Priniotakis (2020), and Oballah (2020), also used the descriptive research design in the empirical review section of the study. The study population consisted of 317 employees at Nutri-Food Ghana. The study employed a sample size of 76 which was derived using the Taro Yamane sampling size statistical technique as follows:

$$n = \frac{N}{1+N (e)^2}$$ n = Sample size, N = Population size, e = Margin of error.

Therefore:

$$n = \frac{317}{1+317 (0.10)^2}$$

$$n = \frac{317}{4.17}$$ Sample size = 76.

The study used a non-probability sampling technique known as convenience sampling. This type of sampling allows the researcher to select the sample frame based on convenience, availability, and ease of accessibility. Primary data was collected through the use of a well-structured questionnaire.

4. Analysis of Data

The study used a sample size of 76, therefore, 76 set of questionnaires were distributed to the selected representatives of the entire population. At the end of the

questionnaire retrieval process, 64 questionnaires which equal to 84.2% of the questionnaires were collected back.

4.1 Analysis of Demographic Data

The result of the analysis in Table 1 shows that 54.7% (N = 35) of the respondents were female and 45.3% (N = 29) of the respondents were male. The analysis shows that the majority of the respondents were female. The table further shows that 23.4% (N = 15) of the respondents were between ages 21 and 30; 45.4% (N = 29) of the respondents were between ages 31 and 40; 20.3% (N = 13) of the respondents were between ages 41 and 50; and 10.9% (N = 7) of the respondents were age 51 or older.

Table 1. *Demographic data on respondents*

Category	Frequency	Percentage (%)
Respondents Gender		
Male	35	54.7
Female	29	45.3
Total	64	100
Age bracket		
21-30	15	23.4
31-40	29	45.4
41-50	13	20.3
51 above	7	10.9
Total	64	100
Highest level of education		
Masters	5	7.8
Degree	21	32.8
Diploma	24	37.5
SSCE	14	21.9
Total	64	100
Position in the business		
Manager	3	4.7
Senior supervisor	5	7.8
Supervisor	9	14.1
General worker	47	73.4
Total	64	100

Source: *Own study.*

The data presented shows that the highest level of qualification for 7.8% (N = 5) of the respondents was a master's degree; for 32.8% (N = 21) of the respondents, a degree; for 37.5% (N = 24) of the respondents, a diploma; and for 21.9% (N = 14) of the respondents, a SSCE. The analysis shows that 4.7% (N = 3) of the respondents

were managers, 7.8% (N = 5) of the respondents were senior supervisors, 14.1% (N = 9) of the respondents were supervisors, and 73.4% (N = 47) of the respondents were general workers. According to the chart, general workers were the most likely to respond to this survey.

Validity and reliability of instrument:
All factor were tested for relability using the Chronbach Alpha as suggested by KElava (2016) who suggests that the Alpha Value should by ≥ 0.7

4.2 Analysis on the Effectiveness of the Inventory Management Policies Used

The research hypothes are stated as follows:

Ho: There is no effectiveness in the Inventory management policies used.
H1: There is effectiveness in the Inventory management policies used.

Rule for making decision:
Reject Ho: if z > za or if z < -za; Accept HO: if z < za or if z > -za
Where: z = test statistic (value), Za = critical (table) value.
       Level of significance used is 5%. The critical value is z = 0.05 = 1.96

The statistical test z = $\dfrac{\varnothing - \varnothing_o}{S\varnothing}$

In Table 2 X represents strongly agree and agree, and Y represents strongly disagree and disagree.

Table 2. Z-score Statistics

X	Y	X²	Y²	XY
51	13	2601	169	663
40	24	1600	576	960
37	27	1369	729	999
44	20	1936	400	880
55	9	3025	81	495
ΣX=227	ΣY=93	ΣX²=10531	ΣY²=1955	ΣXY=3997

Source: Own study.

Formula:

$$z = \frac{N(\Sigma XY) - (\Sigma X)(\Sigma Y)}{\sqrt{N\Sigma X^2 - (\Sigma X)^2 \; N\Sigma Y^2 - (\Sigma Y)^2}}$$

Calculation:

$$z = \frac{5\,(3997) - (227)\,(93)}{\sqrt{(5 \times 10531 - (227)^2 \,.(5 \times 1955 - (93)^2)}}$$

$$z = \frac{19985 - 21111}{\sqrt{(52655 - 51529).(9775 - 8649)}}$$

$$z = \frac{-1126}{\sqrt{1126 \times 1126}}$$

$$z = \frac{-1126}{1126}$$

z = -1.00

Comparison between Zscore and Crictial value = -1.00 < 1.96:
The comparison shows that the Zscore (-1.00) is lesser than the critical value (1.96), therefore, based on the rule for making decision, we will reject the alternative hypothesis (H1) and accept the null hypothesis (H0), that there is no effectiveness in the Inventory management policies used.

4.3 Nature of Relationship between Inventory Management Procedure and Adequate Inventory Supply

Table 3 shows the correlation matrix of the independent variable and the dependent variable. The table shows that the dependent variable (adequate inventory supply) is strongly and positively related to optimise your pick and pack process ($r = 0.810$; $p = 0.000$; two-tailed); optimise and forecast your inventory ($r = 0.727$; $p = 0.000$; two-tailed); establish inventory KPIs ($r = 0.841$; $p = 0.000$; two-tailed); and carry safety stock inventory ($r = 0.704$; $p = 0.000$; two-tailed).

The result of the correlation matrix implies that there is a strong positive relationship between inventory management procedures and adequate inventory supply, which suggests that the dependent variable (adequate inventory supply) increases as inventory management procedure variables increase. In the same way, it suggests that a decrease in inventory management procedures results in a decline in adequate inventory supply.

Table 3. *Pearson Correlation Analysis*

		Adequate Inventory supply	Optimize your pick and pack process	Optimize and forecast your inventory	Establish your inventory KPIs	Carry safety stock inventory
Adequate Inventory supply	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	64				

Optimize your pick and pack process	Pearson Correlation	.810**	1		
	Sig. (2-tailed)	.000			
	N	64	64		
Optimize and forecast your inventory	Pearson Correlation	.727**	.692**	1	
	Sig. (2-tailed)	.000	.004		
	N	64	64	64	
Establish your inventory KPIs	Pearson Correlation	.841**	.731	.643	1
	Sig. (2-tailed)	.000	.000	.001	
	N	64	64	64	64
Carry safety stock inventory	Pearson Correlation	.704**	.662**	.669**	.623	1
	Sig. (2-tailed)	.000	.000	.002	.006	
	N	64	64	64	64	64

Note: **. Correlation is significant at the 0.01 level (2-tailed).
Source: *Own study.*

4.4 Effect of Inventory Management Procedure on the Performance of an Organization

The values for R, R Square, and Adjusted R Square are shown in the model summary table above. The R value represents and displays the simple correlation as 0.973 (97.3%), which denotes a very high degree of correlation. The R Square score is 0.946 (94%), and the adjusted R Square value is 0.941 (94%), both of which indicate a good high connection between the variables. The R square illustrates how much the independent variable affects the dependent variable.

Table 4. *Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.973[a]	.946	.941	.22857

a. Predictors: (Constant), Optimize and forecast your inventory, establish your inventory KPIs, optimize your pick and pack process, Carry safety stock inventory

Source: *Own study.*

According to the model summary of the regression analysis's R square, the inventory management procedure may explain up to 94.6% of the variation in performance of an organization.

Table 5. *ANOVA[a]*

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	44.731	3	14.910	168.552	.000[b]
	Residual	6.632	60	.150		
	Total	51.363	63			

a. Dependent Variable: Organization Performance
b. Predictors: (Constant), Optimize and forecast your inventory, establish your inventory KPIs, optimize your pick and pack process, Carry safety stock inventory
Source: Own study.

The significance of inventory management procedures on organisational performance is reported at.000b in the analysis of variance (ANOVA). This indicates that inventory management procedures affect an organization's performance, which makes the model a strong fit for the available data. The results of the analysis indicate that inventory management procedures considerably predict an organization's performance. The statistically significant model, (F = 168.552 p=0000), thus significantly predicts the outcome variable, the performance of an organization.

Table 6. *Coefficients[a]*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.136	.086		1.577	.023
	Optimize your pick and pack process	.300	.111	.262	2.707	.004
	Optimize and forecast your inventory	.177	.086	.272	2.066	.010
	Establish your inventory KPIs	.507	.111	.568	4.560	.000
	Carry safety stock inventory	.132	.099	.161	1.332	.013

a. Dependent Variable: Organization Performance
Source: Own study.

From the above coefficients' Table, the unstandardized coefficient shows that optimising your pick and pack process (.300) is statistically significant since the significant value is (.004), which is less than 0.05. Optimize and forecast your inventory (.177), which is statistically significant because its significant value (0.01) is less than 0.05. Set your inventory KPIs (.507) are also statistically significant because their significant value (.000) is less than 0.05. Carry safety stock inventory (.132) is likewise statistically significant, as its significant value (0.13) is less than 0.05.

From the coefficients' Table, it is seen that a large value of the coefficient indicates that a unit change in a given variable has a large effect on the performance of an organization.

5. Conclusions and Recommendations

The ultimate goal of every firm is to increase organisational performance. From the various findings made, the study concludes that the inventory management policies used are ineffective. They are on-hand inventory policy, back-orders policy, net inventory policy, in-transit policy, and periodic review policy. The inventory management techniques adopted by the organisation are concluded to be the just-in-time technique, ABC analysis technique, material requirement planning method, economic order quantity technique, and minimum safety stock technique.

The conclusion is also drawn from the findings of the study that the nature of the relationship between inventory management procedures and adequate inventory supply is a significant, strong positive relationship. It can also be arguably concluded that inventory management procedures have a positive effect on how well an organisation performs. It is also established that inventory management procedures have a significant impact on an organization's performance.

The study recommends that consumer goods manufacturing enterprises study their customers' purchasing patterns and monitor their demand sequence to ensure that goods are available when they are needed and do not stay on the shelves for too long before being sold out. The companies are also recommended to ensure that only a certain quantity is readily available at certain times to avoid overstocking or understocking.

It also recommends that management adopt inventory management techniques such as the just-in-time technique, ABC analysis technique, material requirement planning method, economic order quantity method, and minimum safety stock, as these have been found to improve organisational performance. In order to preserve production consistency and maintain the profitability and effectiveness of the organization, management should closely monitor and control their inventory system.

Future studies are recommended to focus their research on other similar companies since this research is not sufficient to draw generalised conclusions without studying some more. Studies on the impact of inventory management practises on operational performance in other manufacturing firms can also be conducted and the results compared.

Future research is also recommended to focus on evaluating the effect of modern technology on inventory control efficiency.

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