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INVENTORY MANAGEMENT PRACTICES AND PERFORMANCE OF FLOUR MILLING COMPANIES IN NAIROBI CITY COUNTY, KENYA

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ABSTRACT

Inventory management is required at different locations within a facility or within multiple locations of a supply network to protect the regular and planned course of production against the random disturbance of running out of materials or goods. The main objective of the study was to examine the effect of inventory management practices and performance of flour milling companies in Nairobi City County, Kenya. The specific objectives were to examine effect of inventory auditing and verification, inventory control policies on performance of flour milling companies in Nairobi City County, Kenya. A descriptive research design was used for this study. The study targeted 10 flour mill industries in Nairobi City County. The study respondents were 367 management employees. The Yamane 1967 formula was used to sample 191 respondents. Purposive sampling was used to sample the management staff in procurement, stores, and sales departments. The questionnaire was used to collect primary data. A pilot was conducted with 19 respondents representing 10% of the sample size. The study used content and construct validity. Reliability of the questionnaire was evaluated through Cronbach's Alpha. Data was analyzed using descriptive and inferential statistics. Findings were tabulated. The pilot study conducted to pretest and validate the questionnaire revealed high reliability and strong validity of the research instrument. Reliability analysis using Cronbach's Alpha demonstrated values above the threshold of 0.7 for all constructs, indicating high internal consistency, with values ranging from 0.813 to 0.820. Validity was confirmed through confirmatory factor analysis, with Average Variance Extracted (AVE) values exceeding 0.5 for all constructs, affirming robust construct validity. These results indicate that the questionnaire effectively measures the intended constructs, providing a reliable and valid tool for the main study. The study found that inventory management practices significantly influence the performance of flour milling companies in Nairobi City County, Kenya. The regression analysis revealed that inventory auditing and verification had the strongest impact on firm performance with a beta coefficient of 0.312 ($p < 0.001$), followed by inventory control policies ($\beta = 0.294$, $p < 0.001$). These findings indicate that improvements in these practices lead to substantial enhancements in firm performance. The study concludes that effective inventory management practices are crucial for operational success and competitiveness in the flour milling industry. It is recommended that firms invest in advanced systems for automate inventory audits, implement strategic inventory control policies to optimize performance and ensure long-term success.

Key Words: Inventory Management Practices, Inventory Auditing and Verification, Inventory Control Policies, Performance, Flour Milling Companies

Background of the Study

Inventory management involves maintaining a firm's stocks at optimal levels, balancing the need to minimize costs while achieving the company's strategic objectives. Effective inventory management specifies the size and placement of stocked goods within facilities or across a supply network to prevent disruptions in production caused by stock shortages (Vessils, 2020). It encompasses strategies like Just-In-Time, ABC analysis, vendor-controlled inventory, economic order quantity, and materials requirement planning, ensuring the right stock is available in the right quantity, at the right time and location, and at the right cost. This directly enhances operational efficiency and overall firm performance (Muller, 2019).

Proper inventory management is crucial in supply chain management as it strengthens internal controls, optimizes inventory levels, and enhances value delivery to customers. It reduces unnecessary wastages, shortages, theft, and production costs, while promoting sales growth, customer satisfaction, and competitiveness. Additionally, it allows manufacturing firms to hedge against risks related to economic, financial, market, and demand fluctuations, acting as a buffer against uncertainties (Opuku & Fiati, 2020).

Performance in inventory management is assessed through key indicators such as order fulfillment rates, inventory turnover, stock accuracy, and customer satisfaction. Effective management of audits, controls, directly influences these performance metrics, driving cost reductions, enhancing service delivery, and boosting overall profitability. Integrating these inventory management components into a cohesive strategy is critical for enhancing the operational performance of manufacturing firms, including flour milling companies in Nairobi City County, Kenya (Otieno & Wanyoike, 2021).

Statement of the Problem

Agriculture remains the backbone of the Kenyan economy, with the production of crops and horticulture contributing 76.5% to the Agriculture GDP, followed by livestock production at 4.9%. The milling sector in Kenya is crucial for food security, primarily processing maize and wheat, which are staple foods with annual per capita consumption of approximately 70 kg and 43 kg, respectively (Kenya National Bureau of Statistics, 2022).

Despite the significance of maize and wheat, productivity in this sector has declined. This reduction has led to price fluctuations and the closure of milling firms in Kenya. Research by Kang'ethe, Mutua, Roesel, and Grace (2020) indicates that over 30 millers have shut down operations due to maize shortages, resulting in job losses for hundreds of workers. Additionally, some firms have reduced their productivity because of raw material shortages. For instance, Unga Group Plc, a leading flour miller in Nairobi, reported a net earnings reduction of 89.3% for the year ending December 31, 2021. The company also experienced a decline in revenue to KSh 8.8 billion in the last six months of 2021 compared to KSh 9.7 billion over a similar period in 2020. Operating profit also dropped from KSh 217.9 million to KSh 79.3 billion during the same period (Okoth, 2022). Quality issues in some milling companies have also led to significant losses. Okoth and Kola (2012) found that 83% of 144 food samples screened for aflatoxin contamination had levels exceeding the regulatory limit of 10 ppb. Furthermore, at least 207 million kg of maize were found unfit for consumption and trade during aflatoxin outbreaks in Kenya between 2004 and 2006. It was also noted that approximately 10% of mills using the food fortification logo were not fortifying their products, misleading customers.

Moreover, Mutua (2020) found that the performance of the flour manufacturing sector in Nairobi has been hampered by outdated supply chain management practices and technologies, poor physical infrastructure, inadequate research and development, limited supply chain innovation, weak institutional frameworks, and insufficient technical and entrepreneurial skills (Government of Kenya, 2016).

Local studies on inventory management practices have highlighted various benefits but are limited to different regions and sectors. Ngugi (2019) examined the effect of inventory management on the performance of manufacturing companies in Eldoret Town, revealing the systems' benefits. Onchoke and Wanyoike (2016) studied inventory management practices and performance of agrichemical firms in Nakuru County, finding that computerized inventory control influenced firm performance. Tarus and Kihara (2018) investigated inventory management and the performance of projects managed by Kenya Power, discovering that inventory turnover significantly positively affected operational performance. However, there is a notable gap in the study of inventory management practices in flour milling companies in Nairobi City County. This study aimed to fill this research gap by examining the effect of inventory management practices on the performance of flour milling companies in Nairobi City County.

General Objective of the Study

To evaluate the effect of inventory management practices and performance of flour milling companies in Nairobi City County, Kenya.

Specific Objectives of the Study

i. To examine the effect of inventory auditing and verification on performance of flour milling companies in Nairobi City County, Kenya.
ii. To determine the effect of inventory control policies on performance of flour milling companies in Nairobi City County, Kenya.

LITERATURE REVIEW

Theoretical Review

Diffusion of Innovations Theory

According to Rogers (1995), Diffusion of innovation (DOI) theory is one of the oldest social science theories. It originated in communication to explain how, overtime, an idea or product gains momentum and diffuses or spreads through a specific population or social system. Diffusion of innovation theory attempts to explain and describe the mechanisms of how new inventions in this case learning management systems is adopted and becomes successful (Clark 2012). Mannan (2013) stated that not all innovations are adopted even if they are good, it may take a long time for an innovation to be adopted. Rogers (1995) identified five critical attributes that greatly influence the rate of adoption. These include: relative advantage, compatibility, trialability and observability. According to Rogers, the rate of adoption of new innovations will depend on how the organization perceives its relative advantage, compatibility, trialability, observability and complexity. The Anichebe and Agu research (2013) found that inventory management is very important for organizational achievement and development. The full profits of an organisation are linked to the volumes of products sold, which relate directly to the quality of the product. The research suggested that organizations diversify their inventory systems to meet particular requirements of manufacturing and manage their inventory system carefully to preserve manufacturing consistency. The theory was related to the objective on inventory auditing and verification. Innovation in inventory management will enable the firms to effectively manage inventory.

Economic Order Quantity (EOQ) Theory

The Economic Order Quantity (EOQ) theory, developed by Ford W. Harris in 1913, is a fundamental concept in inventory management that aims to determine the optimal order quantity that minimizes the total costs associated with inventory. These costs include ordering costs, which are incurred every time an order is placed, and holding costs, which are the costs of storing inventory. Harris's EOQ formula provides a systematic and quantitative method for balancing these costs to achieve cost-effective inventory management (Harris, 1913).

One of the primary benefits of the EOQ model is its ability to inform stock replenishment frequency. By calculating the optimal order quantity, firms can establish inventory policies that prevent overordering and underordering, both of which can lead to increased costs. Frequent replenishment, informed by the EOQ, ensures that inventory levels are kept at an optimal balance, meeting customer demand without incurring unnecessary holding costs. This is particularly crucial in industries with fluctuating demand and perishable goods (Stevenson, 2021).

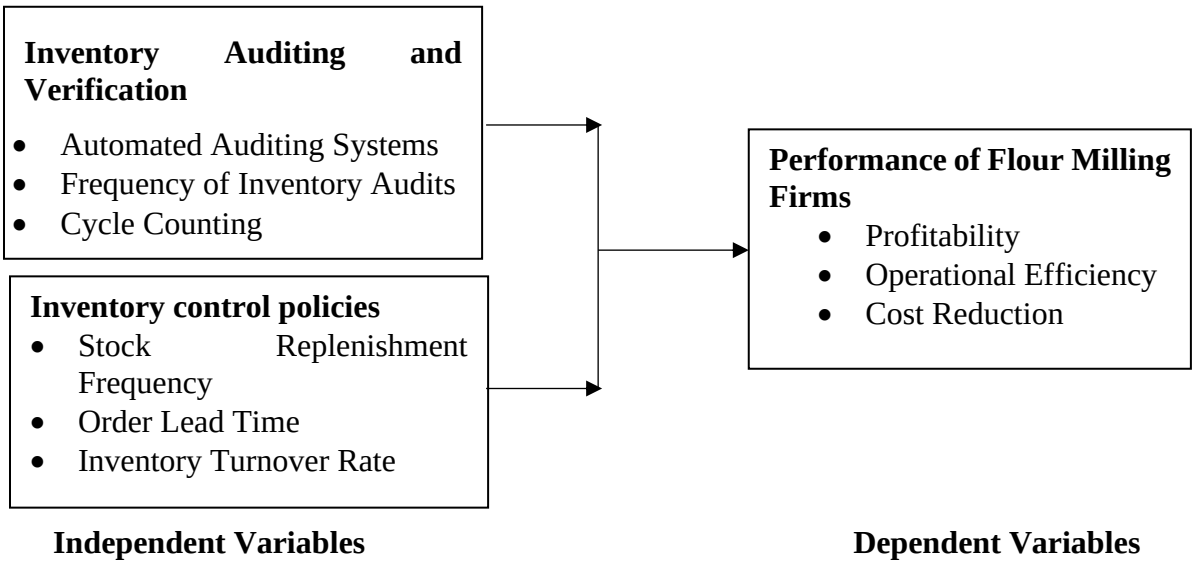
Moreover, while the EOQ model is primarily focused on order quantity, it also impacts order lead time. By optimizing order quantities, firms can better schedule their procurement activities, potentially reducing lead times. This enhanced scheduling capability can lead to more efficient supply chain operations, as companies are better prepared to respond to changes in demand and supply conditions. Reduced lead times are beneficial in maintaining the continuity of production processes and enhancing overall supply chain responsiveness (Nguyen et al., 2020).

Additionally, the EOQ model significantly influences inventory turnover rates, a key performance indicator in inventory management. High inventory turnover rates are indicative of efficient inventory practices, where goods are rapidly cycled through, minimizing the time they spend in storage. By adhering to EOQ principles, firms can avoid excessive inventory buildup and ensure that their inventory levels are closely aligned with actual demand. This alignment not only reduces holding costs but also enhances liquidity and financial performance (Kim & Park, 2021).

In conclusion, the EOQ theory, introduced by Ford W. Harris, remains a cornerstone of inventory management due to its practical application in optimizing order quantities and minimizing associated costs. The theory's principles aid in developing effective inventory control policies that balance ordering and holding costs, improve replenishment strategies, reduce lead times, and increase inventory turnover rates. The continued relevance and application of EOQ highlight its importance in achieving efficient and cost-effective inventory management (Waters, 2020). The theory was used to explain the variable inventory control policies.

Conceptual Framework

The conceptual framework is defined as an interconnected set of ideas regarding how phenomenon works or is related to its parts Antonenko (2015) it serves as a guide and balance to research, according to Ravitch and Riggan (2016), its main function is to clarify concepts and propose how the variables of a study are related. It also provides a context for interpreting the findings of a study to be conducted.



Inventory Auditing and Verification

Inventory auditing and verification are critical practices within inventory management that involve systematically reviewing and confirming the accuracy of inventory records. These practices ensure that the physical stock aligns with the records maintained in the inventory management system. Effective inventory auditing and verification help businesses reduce discrepancies, minimize losses, and maintain accurate inventory data, which is essential for operational efficiency and decision-making (Gupta & Sharma, 2022).

According to Gómez, Sánchez, and Jiménez (2021), inventory auditing is a systematic process that entails the counting, verification, and reconciliation of inventory records. It involves periodic checks to ensure that recorded inventory levels match the actual physical inventory. This practice not only prevents fraud and theft but also improves the reliability of financial statements, as accurate inventory data is crucial for cost accounting and asset management. Moreover, regular inventory audits can identify obsolete or slow-moving inventory, enabling businesses to optimize their stock levels and reduce carrying costs.

Gupta and Sharma (2022) emphasize the importance of inventory verification in enhancing the accuracy of inventory data. They argue that verification processes, when done regularly, provide a clear picture of the inventory status, leading to better inventory control and reduced instances of stock discrepancies. Inventory verification is particularly vital in industries with complex supply chains, where errors in inventory records can lead to significant operational disruptions. The authors suggest that businesses integrate advanced technologies such as RFID (Radio Frequency Identification) and barcode systems to streamline the verification process and improve accuracy.

Furthermore, Miller and Taylor (2023) highlight that inventory auditing and verification practices are increasingly becoming automated with the advent of digital technologies. Automated inventory audits, which use technologies like AI and machine learning, can analyze large volumes of inventory data quickly and accurately, reducing human error and increasing efficiency. These technologies enable real-time inventory tracking, ensuring that any discrepancies are identified and addressed immediately. This level of accuracy and timeliness is essential for maintaining optimal inventory levels and ensuring that production and sales processes are not disrupted due to stock inaccuracies.

Li, Zhang, and Wang (2023) add that effective inventory auditing practices contribute to better decision-making and resource allocation. They argue that accurate inventory data, verified through regular audits, allows businesses to make informed decisions regarding purchasing, production scheduling, and inventory replenishment. Moreover, by identifying discrepancies early, companies can avoid costly errors such as overproduction, stockouts, or excess inventory, thereby improving overall operational efficiency and profitability.

Therefore, inventory auditing and verification are indispensable components of effective inventory management. These practices ensure that businesses maintain accurate inventory records, reduce discrepancies, and optimize their inventory levels, leading to improved operational performance and competitive advantage.

Inventory control policies

Inventory control policies play a pivotal role in the overall performance of manufacturing firms, including flour milling companies. Effective inventory control policies ensure that the right amount of inventory is maintained to meet customer demand while minimizing costs associated with holding excess stock. These policies encompass various practices, such as stock replenishment frequency, order lead time, and inventory turnover rate (Jones & Brown, 2019).

Stock replenishment frequency refers to how often inventory is restocked. This measure is critical in ensuring that the company can meet customer demands without overstocking, which ties up capital and increases holding costs. Frequent replenishment is associated with better

responsiveness to market demands and can help maintain optimal inventory levels (Smith, 2018). On the other hand, infrequent replenishment may lead to stockouts, which can disrupt production schedules and affect customer satisfaction (Jones & Brown, 2019).

Order lead time is another essential measure, representing the time taken from placing an order with a supplier to receiving the goods. Shorter lead times are generally preferred as they reduce the need for high safety stock levels, thus lowering holding costs. Companies with shorter lead times can respond more quickly to changes in customer demand and market conditions (Nguyen et al., 2020). Conversely, longer lead times can lead to increased uncertainty and higher inventory levels to buffer against potential delays (Lee & Kwon, 2018).

Inventory turnover rate is a key performance indicator that measures how often inventory is sold and replaced over a specific period. A higher turnover rate indicates efficient inventory management, suggesting that the company is effectively converting its inventory into sales. High inventory turnover is often linked to better liquidity and reduced holding costs (Kim & Park, 2021). In contrast, a low turnover rate may signal overstocking or sluggish sales, both of which can negatively impact financial performance (Williams & Adams, 2019).

Effective inventory control policies, which optimize stock replenishment frequency, order lead time, and inventory turnover rate, are crucial for enhancing the operational performance of flour milling companies. These policies help balance the costs and benefits of inventory management, contributing to improved efficiency, customer satisfaction, and financial outcomes (Martinez et al., 2021).

Empirical Review

Inventory Auditing and Verification and Firm Performance

Ali and Khan (2021) explored the relationship between inventory verification practices and operational efficiency within the pharmaceutical industry in Pakistan. Utilizing a longitudinal research design, the study analyzed data collected over five years from 50 pharmaceutical firms. The findings indicated that firms with robust and consistent inventory verification systems experienced significantly lower rates of inventory shrinkage, which includes losses due to theft, damage, or errors, as well as reduced inventory obsolescence. These improvements in inventory management contributed to enhanced operational efficiency by minimizing unnecessary costs and ensuring that inventory levels were better aligned with production and sales needs. The study highlighted the critical role that thorough inventory verification practices play in improving the operational efficiency of pharmaceutical companies.

Singh and Patel (2023) conducted a comprehensive study on the effect of inventory verification on the performance of textile manufacturing firms in India. The study utilized a mixed-methods research design, combining surveys with in-depth interviews to collect detailed data from the textile manufacturing sector. The findings indicated that firms that implemented comprehensive inventory verification practices observed significant improvements in their inventory turnover rates. This improvement was accompanied by a reduction in waste, as accurate inventory verification allowed firms to better align their production schedules with actual demand, thereby reducing the amount of obsolete or unsellable inventory. The increased inventory turnover rate also led to more efficient use of capital and resources. The study concluded that inventory verification is a critical practice for enhancing operational performance in the textile industry, where managing large volumes of diverse inventory poses particular challenges.

Moses and Nyarko (2019) investigated the impact of inventory auditing practices on the financial performance of small and medium-sized enterprises (SMEs) in Ghana. The study adopted a qualitative approach, using in-depth interviews with 30 SME owners to gain insights into their inventory management practices and financial outcomes. The findings revealed that SMEs conducting regular inventory audits encountered fewer issues related to stock discrepancies, such as stockouts and overstocking. These careful inventory management

practices led to better cash flow management and improved profitability. By reducing unnecessary expenditures on excess inventory and avoiding lost sales due to stockouts, SMEs were able to maintain more stable and positive financial performance. The study underscored the significant role that inventory auditing plays in the financial success of SMEs, particularly in resource-constrained environments.

Ochieng and Waweru (2020) assessed the role of automated inventory auditing systems in enhancing the performance of large retail chains in Nairobi, Kenya. The study employed a descriptive research design, collecting data from 150 respondents, including managers and inventory controllers within these retail chains. The research found that the adoption of automated inventory auditing systems dramatically reduced human errors in inventory management. These systems provided real-time updates and accurate tracking of inventory, which improved inventory accuracy and facilitated better decision-making. As a result, the retail chains experienced enhanced overall performance, including increased profitability and customer satisfaction, due to better inventory availability and reduced instances of stockouts. The study emphasized the importance of integrating advanced technology into inventory management practices, especially in large retail environments where manual processes are prone to errors.

Mburu and Gachanja (2021) investigated the effect of inventory auditing on the financial performance of food processing firms in Thika, Kenya. This study employed a cross-sectional research design, surveying 60 respondents from various food processing firms. The findings demonstrated that frequent inventory audits were crucial for maintaining accurate financial records and effective stock management. Firms that conducted regular audits were better equipped to prevent stock losses due to errors, theft, or spoilage, which subsequently led to improved profitability and operational efficiency. Accurate inventory records also supported more precise financial reporting, which is essential for informed decision-making in business. The study emphasized the importance of regular inventory audits in the food processing industry, where inventory mismanagement can lead to significant financial losses and operational disruptions.

Karanja and Muturi (2022) conducted an insightful study on the impact of inventory auditing practices on the financial performance of manufacturing firms in Nairobi County, Kenya. The study adopted a quantitative research design, utilizing structured questionnaires to gather data from 100 respondents across various manufacturing firms. Their research revealed that regular and systematic inventory audits significantly enhanced the accuracy of inventory records. This accuracy played a crucial role in minimizing discrepancies between the actual stock and the recorded inventory, which in turn positively influenced the financial performance of these firms. The ability to maintain accurate inventory levels reflected in the financial records allowed companies to avoid losses stemming from stock discrepancies, thus improving their overall financial health. The study concluded that prioritizing inventory audits is essential for manufacturing firms aiming to enhance their financial performance.

Inventory Control Policies and Firm Performance

Tangus (2020) studied the effect of inventory control policies on the performance of manufacturing firms in Kisumu County, Kenya. The findings indicated that trust among supply chain partners is crucial for fostering commitment and improving supply chain performance. The study showed that a lack of trust can lead to inefficient and ineffective performance, as increased transaction costs related to verification, inspections, and certifications of trading partners accumulate.

Chepng'etich et al. (2020) investigated the impact of strategic inventory control practices on the performance of Kenya's devolved government structures. Using a cross-sectional survey design that combined quantitative and qualitative methods, the study targeted personnel in finance and procurement units across ten counties. The results revealed a significant positive relationship between strategic inventory control practices and the operational performance of

devolved governmental institutions. Effective inventory control practices were found to enhance resource management and operational efficiency.

Ngetich et al. (2022) examined strategic inventory control policies and operational performance in food and beverage manufacturing firms in Nakuru County, Kenya. The study employed explanatory and cross-sectional research designs, focusing on 50 respondents. The research established a strong positive relationship between strategic inventory control policies and the operational performance of these firms. Recommendations included the adoption and maintenance of effective inventory control strategies to increase efficiency, reduce costs, and promote better operational performance.

Gebisa and Ram (2020) explored the effect of information sharing as an aspect of inventory control on firm performance in Ethiopia. Data collected from 170 respondents, including employees, suppliers, and distributors, showed that information sharing directly and significantly affects firm performance. The study concluded that higher levels of information sharing lead to better performance outcomes, emphasizing the role of transparent and efficient inventory management practices.

Nguyen et al. (2020) studied the variability of lead times and its impact on inventory control in manufacturing firms. The research highlighted that reducing lead times through effective inventory control policies significantly improves supply chain efficiency and overall firm performance. By optimizing order quantities and scheduling, firms can better align inventory levels with demand, reducing holding costs and enhancing responsiveness to market changes.

Kim and Park (2021) investigated inventory turnover rates as an indicator of effective inventory control policies in the manufacturing sector. Their study found that higher inventory turnover rates are associated with improved financial performance and liquidity. Efficient inventory management practices, which align closely with EOQ principles, were shown to enhance operational performance and reduce unnecessary holding costs.

RESEARCH METHODOLOGY

A descriptive research design was used for this study. According to the Kenya Association of Manufacturers (KAM, 2024), there are 10 firms in the Nairobi Flour Mills Industry. Therefore, the unit of analysis was the 10 flour mill industries in Nairobi County, while the unit of observation was the management staff within these firms. The decision to focus on management staff, is justified by the broader responsibility of management in overseeing various functions, including supply chain activities, strategic decision-making, and overall operational performance. Human resource management data for these firms indicate that the total number of management employees across the firms was 367. The sample size of respondents of 191 was determined using Yamane 1967 formula.

Among the 10 firms in the business, the researcher employed a purposive sampling method to obtain the sample that required for the study to choose listed flour milling enterprises in Nairobi County. The researcher purposively sampled the staff involved in the firm inventory management. This included management staff in the procurement, stores, and sales departments. Primary sources were used to collect data for this investigation. After data collection, the data was analyzed using quantitative methods; descriptive and inferential statistics. The quantitative data was organized, analyzed and tabulated using Statistical Package for Social Sciences (SPSS 28) software. Multivariate Linear regression was used to ascertain the relationship between the independent and dependent variable. Data was presented in tables.

RESEARCH FINDINGS AND DISCUSSIONS

The study targeted 172 respondents after piloting 19 from the original sample of 191. Out of the 172 distributed questionnaires, 151 were returned, yielding a response rate of 87.6%. According to Mugenda and Mugenda (2023), a response rate of 50% is adequate, 60% is good,

and 70% and above is excellent. Therefore, the response rate of 87.6% was considered excellent for further analysis and reporting.

Descriptive Analysis

This section presents the findings from the Likert scale questions where respondents indicated their level of agreement with various statements regarding inventory management practices and their impact on firm performance. A 5-point Likert scale was used where 1-strongly disagree, 2-disagree, 3-moderate, 4-agree, 5-strongly agree, with mean values and standard deviations calculated to interpret the findings. The mean values and standard deviations were calculated to interpret the findings. A mean value of 1-1.4 was strongly disagree, 1.5-2.4 disagree, 2.5-3.4 neutral, 3.5-4.4 agree and 4.5-5 strongly agree. On the other hand, a standard deviation greater than 1.5, suggests that the responses were more diverse, with a wider range of scores across the participants.

Inventory Auditing and Verification

The first objective was to examine the effect of inventory auditing and verification on firm performance. Respondents were asked to indicate their agreement with various statements regarding inventory auditing and verification. The findings are summarized in Table 1.

Table 1: Descriptive Analysis of Inventory Auditing and Verification

Statements	Mean	Standard Deviation
The firm conducts regular inventory audits to prevent discrepancies and ensure accuracy	4.056	0.612
The firm has automated its inventory auditing processes to improve efficiency and reduce human error	3.987	0.689
Inventory verification procedures have been implemented to control various inventory-related costs	4.035	0.638
The firm uses a secure digital system to store and verify inventory transaction information	3.924	0.724
The firm regularly evaluates inventory levels to ensure accuracy and alignment with supplier deliveries	4.003	0.651
Automated auditing systems have reduced inventory management costs	3.951	0.703
The firm ensures that inventory verification aligns with actual production needs and customer demand	4.014	0.678
Aggregate Score	**3.996**	**0.671**

From the findings in Table 1, respondents generally agreed that the firm conducts regular inventory audits to prevent discrepancies and ensure accuracy (M= 4.056, SD= 0.612); that the firm has automated its inventory auditing processes to improve efficiency and reduce human error (M= 3.987, SD= 0.689); and that inventory verification procedures have been implemented to control various inventory-related costs (M= 4.035, SD= 0.638). They also agreed that the firm uses a secure digital system to store and verify inventory transaction information (M= 3.924, SD= 0.724); that the firm regularly evaluates inventory levels to ensure accuracy and alignment with supplier deliveries (M= 4.003, SD= 0.651); that automated auditing systems have reduced inventory management costs (M= 3.951, SD= 0.703); and that the firm ensures that inventory verification aligns with actual production needs and customer demand (M= 4.014, SD= 0.678).

The findings reveal that respondents strongly agreed on the positive impact of inventory auditing and verification on firm performance, reflected in an aggregate mean score of 3.996 (SD=0.671). This aligns with the study by Singh and Patel (2023), who found that comprehensive inventory verification practices lead to significant improvements in inventory

turnover rates, reducing waste and aligning production schedules with actual demand. Such practices not only enhance operational efficiency but also contribute to better financial performance. Similarly, Ali and Khan (2021) demonstrated that robust inventory verification systems significantly lower rates of inventory shrinkage and obsolescence, directly translating into cost savings and improved operational alignment. These literature findings support the current study's results, highlighting the crucial role of inventory auditing and verification in enhancing overall firm performance.

Inventory Control Policies

The second objective of the study was to determine the effect of inventory control policies on firm performance. Respondents indicated their agreement with statements about inventory control policies. The findings are summarized in Table 2.

Table 2: Descriptive Analysis of Inventory Control Policies

Statements	Mean	Standard Deviation
The firm maintains optimal stock levels to meet customer demand without overstocking	3.945	0.684
Inventory replenishment is carried out frequently to ensure the availability of products	3.973	0.659
The firm uses advanced inventory management systems to track and control inventory levels	4.028	0.635
Order lead times are minimized to reduce the need for high safety stock levels	4.001	0.672
Inventory turnover rates are regularly monitored to assess the efficiency of inventory management	3.959	0.691
The firm has implemented effective policies to manage and control inventory costs	4.016	0.648
Regular audits are conducted to ensure accuracy in inventory records and stock levels	4.033	0.641
Aggregate Score	**3.994**	**0.661**

Results in Table 2 show that the respondents agreed on average that the firm maintains optimal stock levels to meet customer demand without overstocking (M= 3.945, SD= 0.684); that inventory replenishment is carried out frequently to ensure the availability of products (M= 3.973, SD= 0.659); and that the firm uses advanced inventory management systems to track and control inventory levels (M= 4.028, SD= 0.635). Respondents also agreed that order lead times are minimized to reduce the need for high safety stock levels (M= 4.001, SD= 0.672); that inventory turnover rates are regularly monitored to assess the efficiency of inventory management (M= 3.959, SD= 0.691); that the firm has implemented effective policies to manage and control inventory costs (M= 4.016, SD= 0.648); and that regular audits are conducted to ensure accuracy in inventory records and stock levels (M= 4.033, SD= 0.641).

The results indicate that respondents agreed that effective inventory control policies have a positive influence on firm performance, as evidenced by an aggregate mean score of 3.994 (SD=0.661). This is consistent with the findings of Ngetich et al. (2022), who established a strong positive relationship between strategic inventory control policies and operational performance in food and beverage manufacturing firms. Their study highlighted that well-implemented inventory control strategies, such as maintaining optimal stock levels and monitoring inventory turnover, are crucial for reducing costs and enhancing efficiency. Similarly, the study by Tangus (2020) emphasized that trust and cooperation among supply chain partners, facilitated by robust inventory control policies, are essential for improving supply chain performance and, by extension, overall firm performance. These literatures

reinforce the current study's findings, highlighting the importance of strategic inventory control policies in driving the success and efficiency of firms.

Firm Performance

The general objective of the study was to evaluate the effect of inventory management practices on the performance of flour milling companies in Nairobi City County, Kenya. Respondents were asked to indicate their level of agreement with various statements regarding firm performance. The findings are summarized in Table 3.

Table 3: Descriptive Analysis for Firm Performance

Statements	Mean	Standard Deviation
Inventory management has helped to reduce operational costs.	3.912	0.687
The firm ensures that quality products are delivered to customers.	4.025	0.658
We have been able to increase the volume of production.	4.014	0.641
Our operational efficiency has improved.	3.987	0.673
Inventory auditing practices have contributed to more accurate financial reporting.	4.042	0.629
The firm's profitability has increased due to better inventory control.	4.031	0.665
We have experienced fewer stock discrepancies since implementing regular inventory audits.	3.973	0.684
Aggregate Score	**3.998**	**0.662**

From the findings, respondents agreed that inventory management has helped to reduce operational costs (M= 3.912, SD= 0.687); that the firm ensures that quality products are delivered to customers (M= 4.025, SD= 0.658); that they have been able to increase the volume of production (M= 4.014, SD= 0.641); and that their operational efficiency has improved (M= 3.987, SD= 0.673). Respondents further agreed that inventory auditing practices have contributed to more accurate financial reporting (M= 4.042, SD= 0.629); that the firm's profitability has increased due to better inventory control (M= 4.031, SD= 0.665); and that they have experienced fewer stock discrepancies since implementing regular inventory audits (M= 3.973, SD= 0.684).

The findings indicate that respondents strongly agreed that effective inventory management practices positively impact firm performance, with an aggregate mean score of 3.998 (SD=0.662). This high level of agreement suggests that inventory management practices are integral to achieving operational efficiency, ensuring product quality, enhancing financial performance, and maintaining overall organizational effectiveness. These findings align with the broader literature on the critical role of inventory management in driving firm performance, as highlighted by studies such as those by Gakwaya and Irechukwu (2022) and Mweshi (2022), which underscore the importance of efficient inventory practices in reducing costs, optimizing operations, and improving financial outcomes.

Correlation Analysis

Pearson correlation was used to measure the strength and direction of the linear relationship between the variables. The relationship was considered to be small if $\pm 0.1 < r < \pm 0.29$; medium if $\pm 0.3 < r < \pm 0.49$; and strong if $r > \pm 0.5$. The correlation coefficients between the dependent variable (firm performance) and the independent variables (inventory auditing and verification, inventory control policies) are presented in Table 4.

Table 4: Correlations

		Firm Performance	Inventory Auditing	Inventory Control
Firm Performance	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	105		
Inventory Auditing and Verification	Pearson Correlation	.764**	1	
	Sig. (2-tailed)	.000		
	N	105	151	
Inventory Control Policies	Pearson Correlation	.741**	.485	1
	Sig. (2-tailed)	.000	.178	
	N	105	151	151

The Pearson correlation coefficient between inventory auditing and verification and firm performance is 0.764, with a p-value of 0.000. This indicates a strong, positive, and statistically significant relationship between inventory auditing practices and firm performance. This finding implies that regular and thorough inventory audits, which ensure accuracy and prevent discrepancies, are crucial for the operational success and financial health of flour milling companies. This result is consistent with the findings of Karanja and Muturi (2022), who emphasized that systematic inventory audits enhance the accuracy of inventory records, thereby positively impacting the financial performance of manufacturing firms. The strong correlation in this study highlights the importance of inventory auditing as a key driver of firm performance.

The Pearson correlation coefficient between inventory control policies and firm performance is 0.741, with a p-value of 0.000. This reflects a strong, positive, and statistically significant relationship, suggesting that effective inventory control policies are closely linked to improved firm performance. This finding is supported by the literature from Chepng'etich et al. (2020), who found that strategic inventory control practices significantly enhance the operational performance of government institutions in Kenya. The strong correlation observed in this study reinforces the critical role of inventory control policies in ensuring operational efficiency and cost-effectiveness, thereby driving firm performance.

Multiple Regression Analysis

The beta coefficients represent the degree of change in the dependent variable (firm performance) for every one-unit change in the independent variables, assuming all other variables are held constant. Table 5 presents the beta coefficients for the study variables.

Table 5: Beta Coefficients

Variable	**Unstandardized Coefficients (B)**	**Standard Error**	**Standardized Coefficients (Beta)**	**t**	**Sig.**
(Constant)	1.097	0.135		8.122	0.000
Inventory Auditing and Verification	0.312	0.062	0.326	5.032	0.000
Inventory Control Policies	0.294	0.060	0.308	4.900	0.000

From the findings, the following regression equation was fitted:

$$Y = 1.097 + 0.312\ X_1 + 0.294\ X_2$$

Inventory auditing and verification have the highest beta coefficient at 0.312, with a p-value of 0.000, suggesting that improvements in inventory auditing practices lead to the most substantial increase in firm performance—by 0.312 units for every one-unit enhancement in auditing

practices. This finding is consistent with Karanja and Muturi (2022), who highlighted the importance of regular inventory audits in maintaining accurate records and minimizing discrepancies, which directly contribute to better financial performance.

Inventory control policies also play a significant role, with a beta coefficient of 0.294 and a p-value of 0.000. This indicates that effective inventory control policies contribute to a 0.294 unit increase in firm performance for every one-unit improvement in these policies. This result aligns with the findings of Chepng'etich et al. (2020), who demonstrated that strategic inventory control practices are crucial for optimizing resource management and improving operational efficiency in government institutions, highlighting the broader applicability of these practices across different sectors.

Conclusions

Inventory auditing and verification practices are essential for the performance of flour milling companies. The study shows that regular and thorough audits, coupled with the automation of auditing processes, play a critical role in maintaining accuracy and controlling costs, leading to improved firm performance. Effective inventory auditing and verification practices are therefore vital for ensuring operational efficiency and financial stability.

The study concludes that strategic inventory control policies are crucial for the performance of flour milling companies. Maintaining optimal stock levels, ensuring frequent replenishment, and using advanced inventory management systems are necessary to minimize costs and enhance efficiency. Implementing effective inventory control policies is essential for ensuring smooth operations and improving overall firm performance.

Recommendations

Inventory Auditing and Verification

Flour milling companies should prioritize the implementation of comprehensive inventory auditing and verification practices. This includes automating inventory audits to reduce human error and improve accuracy, as well as establishing regular audit schedules to ensure continuous monitoring of inventory levels. Companies should also adopt secure digital systems for storing and verifying inventory transaction information, ensuring alignment with supplier deliveries and actual production needs. To further enhance the effectiveness of inventory auditing, companies should consider training staff on the latest auditing techniques and technologies, and establish clear performance metrics to evaluate the impact of auditing practices on firm performance.

Inventory Control Policies

To improve inventory control policies, flour milling companies should focus on maintaining optimal stock levels to meet customer demand without overstocking. This can be achieved by implementing advanced inventory management systems that allow for real-time monitoring of inventory turnover rates and order lead times. Companies should also establish clear policies for inventory replenishment and cost control, ensuring that these policies are regularly reviewed and updated to reflect changes in market conditions and operational needs. Additionally, companies should conduct regular audits to ensure the accuracy of inventory records and the effectiveness of control policies, and consider adopting best practices from leading firms in the industry to enhance their inventory management strategies.

Suggestions for Further Studies

While this study has provided valuable insights into the impact of inventory management practices on the performance of flour milling companies, further research could explore the impact of these practices in other sectors or counties. Additionally, future studies could investigate the role of technology and innovation in enhancing the efficiency of inventory management practices. Qualitative research could also be conducted to gain a deeper understanding of the experiences and challenges faced by firms in managing inventory.

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