


Influence of Inventory Management Strategy on the Performance of Retail Chains in Nairobi Central Business District.

Authors: ¹Martin Wachira Wamuvu, ²Dr. Boniface Ratemo, PhD, ³Dr. Lydia Mwai, PhD

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¹ Student: Dedan Kimathi University of Technology, Kenya

² Lecturer: Dedan Kimathi University of Technology, Kenya.

³ Lecturer: Dedan Kimathi University of Technology, Kenya.

ABSTRACT

Operations strategy is the value-adding process used by the company to guarantee that customers receive value through the conversion of resources into finished goods and services. Operations management procedures include quality control, supply chain management, inventory management, risk management, and information technology. The main objective of this study was to establish the influence of inventory management strategy on the performance of retail chains in the Nairobi Central Business District. The study was anchored on the systems theory. The study adopted a descriptive research design and the target population was 34 retail chains within the Nairobi CBD area. The sample population involved 80 managers who were in charge of the retail chains in Nairobi CBD. Self-administered structured questionnaires were used to collect primary data. Data was analyzed using descriptive and inferential statistics. The study found that inventory management strategy has a positive significant influence on the performance of retail chains in the Nairobi Central Business District. This is because an increase in a unit of inventory management strategy leads to an improvement of the performance of the retail chains. The study recommended that retail chains should implement inventory management practices that aim to reduce deadstock and minimize inventory holding costs. The study also recommended that organizations should utilize inventory forecasting techniques to accurately predict demand and adjust inventory levels accordingly. The study further recommended that retail chains should explore vendor-managed inventory (VMI) arrangements with key suppliers to maintain optimal stock levels. The study recommended that retail chains should regularly assess and update inventory turnover strategies to meet customer demand effectively.

Keywords: Inventory Management Strategy, Operations Management Strategy, Performance of Retail Chains

I.0 INTRODUCTION

1.1 Background of the Study

Pradhan and Routroy (2018) stated that operations strategy refers to a set of choices that, by balancing operational needs with market demands, shapes the long-term abilities of each type of operation and its involvement in the overall strategy. The needs of a certain market must be addressed if an organization is to meet market demands. The formulation of a long-term plan for using the organization's main assets in a manner that maximizes compatibility with the firm's long-term corporate strategy can also be seen as operations strategy (Glover et al., 2014). Operations strategy is the value-adding process used by the company to guarantee that customers receive value through the conversion of resources into finished goods and services. Operations management procedures include quality control, supply chain management, inventory management, risk management, and information technology (Kozlenkova et al., 2015). Customers routinely want for things to be delivered more quickly, on schedule, and without damage; this may be done by properly coordinating efforts by integrating frameworks and procedures to create teamwork.

Each of the links, between inventory network management center abilities, methods, and catalogue network management center skills, which are challenging to organize calls for greater cooperation between suppliers and wholesalers. This mixture creates a competitive edge within the framework that the competition in the commercial center cannot match, and it subsequently develops into the firm's core competency (Ritchie & Brindley, 2007). Because of this uncertainty, particular organizations must be more adaptable, necessitating more flexibility in channel connections. To do this, a business must match its capability for inventory network management, employment of technology, and production network administration with its suppliers and wholesalers. This will improve the business's competitive edge and corporate execution (Glover et al., 2014). Inventory management can determine what you receive when you receive it and whether your assets and money are thriving and working for you, or just sitting on racks collecting dust. Inventory control systems are governed by operations management, which determines how well your stock is managed (Sarkis & Beske-Janssen, 2019). Thakkar et al., (2009) stated that metrics should be assigned to the areas that are most appropriate, and these metrics should balance financial and non-financial measures. Some authors address the retail businesses and measures or metrics of operational performance in SMEs (Tatoglu et al., 2016), however, not all describe the meaning of the measures and metrics used. Also, there are metrics and measures that have different nomenclatures but measure the same thing with regards to the performance of retail chains (Charles, Ndolo, & Odari, 2023)..

1.2 Statement of the Problem

The retail market industry in Kenya emerges as one of the swiftest expanding sectors within the nation's economic landscape. Projections indicate a promising trajectory, with Kenya's overall retail sales expected to ascend from 260 billion Ksh recorded in 2021 to an estimated 275 billion Ksh by the close of 2022, as reported by the Kenya National Bureau of Statistics (2022). Moreover, the burgeoning presence of e-commerce, with transactions totaling \$1.7 billion in 2021, underscores the dynamic forces propelling this growth trend. These forces encompass a multifaceted array of factors such as sustained economic expansion, population growth, heightened levels of disposable income, and the rapid development of a well-structured retail infrastructure, as evidenced by reputable sources like the Kenya National Bureau of Statistics (2022) and KPMG (2022). In response to the mounting market demand, forecasts suggest a robust expansion of the industry by an annual rate ranging between 7 to 7.5 percent, according to insights from KPMG (2022). This anticipated growth trajectory not only underscores the sector's pivotal role within Kenya's economic framework but also underscores its significant contributions. Currently, the retail sector accounts for a noteworthy 7 percent share of Kenya's Gross Domestic Product (GDP). Furthermore, it stands out as a primary source of employment opportunities, second only to sectors such as education, land transport, and building construction. These findings underscore the indispensable role played by the retail industry in driving economic prosperity and fostering employment within Kenya's evolving economic landscape.

Despite the identification of this importance, the lack of resilience within retail chains is visibly demonstrated through a multitude of challenges, encompassing financial mismanagement, inadequate strategic decision-making, operational inefficiencies, and governance issues, as noted by Knight et al. (KFA, 2020). These factors contributed significantly to the closure of various retail chains, such as Nakumatt and Tusksys Supermarket. Uchumi, which was once a prominent player in the Kenyan and East African retail landscape, faces ongoing struggles and relies heavily on government interventions to remain operational. Choppies is grappling with legal disputes with the Kenya Revenue Authority, leading to uncertainties about its future in the Kenyan market (KRA, 2020). This trend of instability in the retail sector has persisted over the years, with Ukwala



Supermarkets' liquidation and subsequent acquisition by Choppies being indicative of the financial challenges prevalent in Kenya's competitive retail environment.

The Kenya Retail Sector Report 2020 by Cytonn (2020) corroborated these observations, highlighting a downward trajectory in sector performance, notably evidenced by declining average rental yields. The report indicated a decrease from 8.6% to 7.0% in 2018, further plummeting to 6.3% in 2019, primarily attributed to diminished occupancy rates resulting from retail closures (Njiru, Namusonge, & Thogori, 2024). The onset of the COVID-19 pandemic in 2020 exacerbated these challenges, leading to further deterioration in sector performance. In Nairobi City County alone, the number of retail chains dwindled from 303 to 176 in the span of a year, with projections anticipating a further decline to 172 by 2023 (Cytonn, 2020). This data underscores the deep-seated issues confronting the retail sector in Kenya, underscoring the urgent need for effective implementation of operations management strategies in order to safeguard against future disruptions and promote sustainable growth which will in turn positively influence the performance of the retail chains. There is insufficient knowledge on how management of operations may help to make the retail sector fit in strategically. Therefore, this research observed the influence of inventory management strategy as an operational management strategy on the performance of retail chains in Nairobi central business district.

1.3 Research Objectives of the Study

To establish the influence of inventory management strategy on the performance of retail chain in Nairobi Central Business District.

1.4 Research Hypothesis

H₀₁: There is no statistically significant influence of inventory management strategy on the performance of retail chain in Nairobi Central Business District.

2.0 LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Systems Theory

Von Bertalanffy (1946), who was a biologist, proposed that the system itself is more significant than all of the individual parts that comprise it. Two systems theories allow the ability for a family to adapt to their environment, the first being morphostasis, meaning "changing to adapt or adapting to change," and the second, morphogenesis, which is the family's ability to grow and change for the better because of internal or external environmental conditions. Additionally, a system has feedback loops from the individuals and others that modify and create the system. Conferring to the systems theory, the framework-thinking hypothesis recommends tending to various framework components from a holistic perspective rather than in isolation from one another (Revilla & Saenz, 2017). The hypothesis calls for a more thorough understanding of the issues, or issues nearby, by gauging designs or the interrelationships that are having an impact on everything among diverse components of a framework in order to handle the issues fully (Brun et al., 2017). When a structure is divided into its component components, such relationships or the moving qualities at work in the entire structure would disappear. This theory is particularly well-suited for meticulously delineating the SCM hones' distinct portions. For a sound energy regarding these procedures, factors like the dynamic culture, the structure, the general open having in that, and the IT foundation that are set up inside and across finished shop compose should be taken into account on all fronts. It is crucial to have an excellent strategy in place before moving to such a well-organized technique because failure to do so would leave open the possibility that not all urgent components have been sufficiently researched (Schmidt et al., 2017).

In this frame of reference, a system can have groups of activities that frequently connect or relate to

one another. System theory is applied in supply chain administration to combine different elements of a complex supply chain, such as material, information, human, capital, and financial resources, to create a subsystem that is then a part of a larger network or system of supply chains. The idea contends that in order to know the external and internal aspects that affect an organization's supply chain performance from a holistic viewpoint, ST must be used. Thus, the frameworks thinking theory gives light on the reasonableness of various SCM connections and their effects on decisive outcomes, such as customer commitment. As the systems theory brings together multiple elements of a complicated supply chain, it is therefore designed to address the inventory management strategies used by retail chains.

2.2 Conceptual Framework

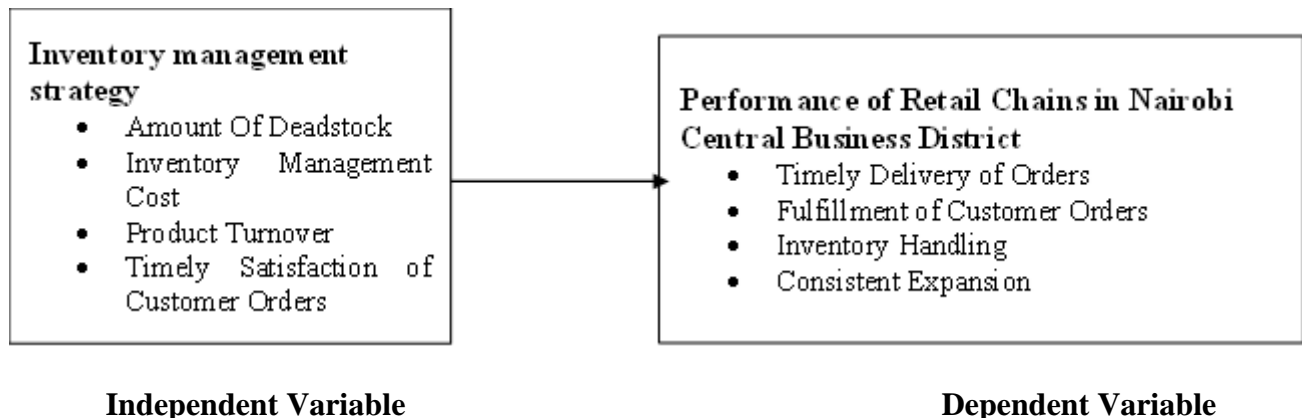


Figure 2.1: Conceptual Framework

2.4 Empirical Review

An empirical literature review is an analyzed study of published works from journals, books, and periodicals that have deliberated on theories and delivered empirical results essential to the topic of discussion (Zikmund, 2014). This quarter explains past literature reviews relevant to vendor management practices on firm performance in various industries, as discussed in the section below. Breivik (2019) carried out research on the effects of temporal trends and retail chain connections on inventory income in Norwegian SMEs. The author argues that inventory represents what a business has to offer its clients for gain first - hand and is a significant and important asset for merchants. However, keeping an inventory costs money. The study's evidence suggests that, after adjusting for factors known to have an effect on relative inventory levels, the investigated retail chains' lead to significant improvements varied but dropped across the sampling interval. The research also discovered that retail chain affiliation affects inventory income at the store level after adjusting for capital investment, operating profit, increased sales, and the reality that inventory increases with firm size.

Over the long term, stakeholders should pay attention to inventory levels in comparison to other financial KPIs. However, inventory management heavily depends on a company's capacity to quickly adjust inventory in response to demand. Romyantsev and Netessine (2007) identify a link between financial performance and a number of various metrics of such adjustment capabilities and responsiveness. One can categorize responsiveness into two groups. In contrast to the under-responsive measure, which shows a lesser change in inventory in relation to a change in sales, the over-responsive measure implies that a change in sales is accompanied by a bigger rise or decrease in inventory. More particular, they discover that higher firm-level responsiveness is linked to a poorer return on assets.

According to recent research by Kesavan et al (2016), retailers with high inventory turnover (HIT) modify their purchases in response to shocks, while retailers with low inventory turnover (LIT) adjust their prices. Their data suggests that when demand shocks happen, financial performance suffers more among LIT shops than among HIT retailers. According to Huang et al (2019), study about applying data envelopment analysis to analyze the allocation performance in a fashion retail chain, efficiency is one of the most important evaluation factors in any supply chain management, especially in the fashionable retail sector. It was found that the fashion industry is characterized by unpredictable demand and short product life cycles. The large percentage of fast-fashion businesses employ an allocation approach that combines convenience sampling technique and multi-replenishment in order to obtain the most recent market data

3.0 RESEARCH METHODOLOGY

The research employed a descriptive study design, emphasizing data over theory, to assess the impact of operations management strategies on retail chain performance in Nairobi's Central Business District. The target population comprised management respondents from 34 supermarkets in Nairobi County, each employing 100-300 individuals. Using a stratified random sampling technique, 10% of the target population (80 respondents) were selected to ensure representation from each subgroup. Structured questionnaires were the primary data collection instrument, aligning with study objectives for confidentiality, ease of administration, cost-effectiveness, and time efficiency. The study focused on Nairobi for logistical reasons. The chosen research design and methods allowed for a comprehensive investigation into the perceived influence of operations management strategies on retail chain performance.

4.0 DISCUSSION OF FINDINGS

4.1 Response Rate

Response rate refers to the extent to which the final data sets includes all sample members and is calculated as the number of respondents with whom interviews are completed (Kothari, 2004). The researcher distributed 80 questionnaires and 77 questionnaires were completed by the respondents representing a 97% return rate as shown in Table 4.1. Howe and Peck (2017) consider a response rate of 75% and above appropriate. Therefore, the achieved response rate in the study is sufficient to make valid findings. Table 4.1 below shows a representation of the response rate for this study:

Table 4. 1 Response Rate

Particulars	Frequency	Percentage (%)
Returned questionnaires	77	96.25%
Unreturned questionnaires	3	3.75%
Total distributed questionnaires	80	100.00

4.2 Descriptive Statistics for Inventory Management Strategy on the Performance of Retail chains

The respondents were questioned on various indicators of inventory management strategy on the performance of retail chains. Their responses were rated on a 5 points Likert scale in which they either stated strongly disagree (SD), disagree (D), neutral (N), agree (A) and strongly agree (SA). The results were expressed in percentages as shown in Table 4.10

Table 4.2: Descriptive Statistics for Inventory Management Strategy

Statement	SD	D	N	A	SA	M	STD
We have few deadstock in our shelves	1.3	6.5	20.8	27.3	44.1	4.06	1.02
We have minimal inventory management cost	3.9	1.3	1.3	26	67.5	4.52	0.91

in our retail chain							
We have high product turnover in our retail chains	0	1.3	5.6	55.2	37.9	4.34	0.61
We fulfill our customer needs just in time	2.6	6.5	14.3	39	37.6	4.03	1.01

The mean for statements regarding F1: We have few deadstock in our shelves was 4.06 with a Standard Deviation of 1.02. The data indicates a high level of agreement among respondents regarding the retail chain's ability to maintain few deadstock items on its shelves. Approximately 44.1% strongly agree, 27.3% agree, and a significant percentage are either neutral, disagree, or strongly disagree. The mean for statements regarding F2: We have minimal inventory management cost in our retail chain was 4.52 with a Standard Deviation of 0.91. Respondents strongly agree that the retail chain incurs minimal inventory management costs. Approximately 67.5% strongly agree, 26% agree, and a negligible percentage are either neutral, disagree, or strongly disagree. The mean for statements regarding F3: We have high product turnover in our retail chains was 4.34 with a Standard Deviation of 0.61. The findings suggest a high level of agreement among respondents regarding the retail chain's ability to achieve a high product turnover. Approximately 55.2% strongly agree, 37.9% agree, and a negligible percentage are either neutral, disagree, or strongly disagree. The mean for statements regarding F4: We fulfill our customer needs just in time was 4.03 with a Standard Deviation of 1.01. Respondents generally agree that the retail chain fulfills customer needs just in time. About 37.6% strongly agree, 39% agree, and a significant percentage are either neutral, disagree, or strongly disagree. In summary, the findings suggest that the retail chain excels in inventory management practices. Respondents generally agree that the chain maintains few deadstock items, incurs minimal inventory management costs, achieves high product turnover, and fulfills customer needs just in time.

4.3 Descriptive Statistics for Performance of Retail Chains

The respondents were questioned on various indicators of performance of retail chains. Their responses were rated on a 5 points Likert scale in which they either stated strongly disagree (SD), disagree (D), neutral (N), agree (A) and strongly agree (SA). The results were expressed in percentages as shown in Table 4.11

Table 4.3: Descriptive Statistics for Performance of Retail Chains

Statement	SD	D	N	A	SA	M	STD
Order are received and delivered on time	2.6	5.2	6.5	35.1	50.6	4.26	0.98
Customer orders are fulfillment according to customers expectation	0	0	10.4	31.2	58.4	4.48	0.68
There is minimum loss during inventory handling	0	5.2	6.5	50.6	37.7	4.21	0.78
We maintain low operational cost	0	2.6	18.2	55.8	23.4	4.00	0.73
We have consistently expanded our retail chains	2.6	2.6	6.5	42.9	45.4	4.26	0.89

The mean for statements regarding G1: Orders are received and delivered on time was 4.26 with a Standard Deviation of 0.98. The data indicates a high level of agreement among respondents regarding the retail chain's ability to receive and deliver orders on time. Approximately 50.6% strongly agree, 35.1% agree, and a significant percentage are either neutral, disagree, or strongly disagree. The mean for statements regarding G2: Customer orders are fulfilled according to customers' expectations was 4.48 with Standard Deviation of 0.68. Respondents strongly agree that

the retail chain fulfills customer orders according to customers' expectations. Approximately 58.4% strongly agree, 31.2% agree, and a negligible percentage are either neutral, disagree, or strongly disagree. The mean for statements regarding G3: There is a minimum loss during inventory handling was 4.21 with a Standard Deviation of 0.78. The findings suggest a high level of agreement among respondents regarding the retail chain's ability to minimize loss during inventory handling. Approximately 50.6% strongly agree, 37.7% agree, and a negligible percentage are either neutral, disagree, or strongly disagree. The mean for statements regarding G4: We maintain low operational cost was 4.00 with a Standard Deviation of 0.73. Respondents generally agree that the retail chain maintains low operational costs. About 55.8% strongly agree, 23.4% agree, and a significant percentage are either neutral, disagree, or strongly disagree. The mean for statements regarding G5: We have consistently expanded our retail chains was 4.26 with a Standard Deviation of 0.89. The findings suggest a high level of agreement among respondents regarding the retail chain's consistent expansion. Approximately 45.4% strongly agree, 42.9% agree, and a significant percentage are either neutral, disagree, or strongly disagree. In summary, the findings suggest that the retail chain performs well in various aspects of its operations. Respondents generally agree that orders are received and delivered on time, customer orders are fulfilled as expected, losses during inventory handling are minimized, operational costs are low, and the retail chain has consistently expanded.

4.4 Regression Statistics

4.4.1 Simple Linear Regression on Inventory Management Strategy on the performance of retail chains

The model has an R-squared value of 0.770, indicating that approximately 77.0% of the variation in retail chain performance can be explained by inventory management. The adjusted R-squared value, which considers the number of predictors in the model, is 0.767. The standard error of the estimate is 0.297.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.877 ^a	.770	.767	.297

a. Predictors: (Constant), inventory management strategy

The analysis of variance (ANOVA) table shows that the regression is statistically significant with an F-statistic of 250.705 and a p-value of 0.000. This suggests that inventory management has a significant influence on retail chain performance.

Table 4.5: ANOVA^a for Inventory Management Strategy

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.172	1	22.172	250.705	.000 ^b
	Residual	6.633	75	.088		
	Total	28.805	76			

a. Dependent Variable: Retail chain performance

b. Predictors: (Constant), inventory management strategy

The constant (intercept) is 0.479, and it is statistically significant ($p = 0.045$). The coefficient for inventory management is 0.888, and it is statistically significant ($p = 0.000$). The standardized coefficient (Beta) is 0.877. This means that for every one-unit increase in the score for inventory management, the retail chain performance is expected to increase by 0.888 units, holding other factors constant.

Table 4.6: Coefficients^a for Inventory Management Strategy

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.479	.235		2.035	.045
	inventory management	.888	.056	.877	15.834	.000

a. Dependent Variable: Retail chain performance

In summary, the analysis indicates that inventory management has a statistically significant and positive influence on retail chain performance, explaining approximately 77.0% of the variation in performance. The intercept is also statistically significant, suggesting that inventory management's effect on performance remains significant even when other factors are considered.

4.9 Hypothesis Testing

The test of hypothesis was conducted using the Ordinary Least Square Regression. The acceptance/rejection criteria was that, reject the null hypothesis if the p-value is less than the convectional 0.05. Fail to reject the null hypothesis if the p-value is higher than the convectional 0.05.

H₀₅: There is no statistically significant influence of Inventory management strategy on performance of retail chains in Nairobi Central District.

The null hypothesis was that there is no statistically significant influence of inventory management strategy on performance of retail chains in Nairobi Central District. Results in Table below indicates that p-value (0.000) was less than the convectional p-value ($p = 0.05$). This demonstrates that inventory management strategy has a significant effect on performance of retail chains in Nairobi Central District. Otherwise put, the influence of inventory management strategy practices in determining performance of retail chains in Nairobi Central District cannot be ignored. In conclusion, we reject the null hypothesis H₀₄: that there is no statistically significant influence of inventory management strategy on performance of retail chains in Nairobi Central District.

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the Study

Inventory management was identified as a significant driver of retail chain performance. A one-unit increase in the score for inventory management is associated with an expected increase of 0.888 units in performance. Efficient inventory management leads to reduced operational costs and improved product turnover, contributing to overall performance. The model explained around 77.0% of the variation in retail chain performance.

5.2 Conclusions of the Study

Inventory management emerged as a significant driver of retail chain performance. The findings indicate that efficient inventory management practices, characterized by low deadstock and minimal inventory costs, lead to improved performance. Retail chains should aim to minimize deadstock and optimize inventory turnover to reduce operational costs and meet customer demand. Effective inventory management is a critical factor in maintaining competitiveness.

5.3 Recommendation of the Study

The study recommended that retail chains should implement inventory management practices that aim to reduce deadstock and minimize inventory holding costs. They should also utilize inventory forecasting techniques to accurately predict demand and adjust inventory levels accordingly. Retail chains should explore vendor-managed inventory (VMI) arrangements with key suppliers to maintain optimal stock levels. Retail chains should also regularly assess and update inventory turnover strategies to meet customer demand effectively.

5.3 Areas for Further Research

The scope of the investigation was restricted to supermarkets in Nairobi CBD. To be able to generalize findings about the Kenyan retail market, it will be important to do additional research that takes into account other retail supermarkets in other significant cities including Mombasa, Eldoret, and Kisumu. In this manner, the issue that has been persisting among the retail players can be remedied. The study also focused on inventory management practices, but it did not devote much time to the environment in which retail outlets operate, despite the fact that this environment is just as vital to an organization's ability to survive and thrive as competitive strategies are. It is proposed that research be conducted on the relationship between inventory management practices and the organizational performance of retail supermarkets, with the operational environment serving as a moderating element in the study. It is possible to do an investigation of the same nature, but with the addition of additional variables

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