Int Journal of Social Sciences Management and Entrepreneurship 8(4): 185-197 2024

ISSN 2411-7323

www.sagepublishers.com

SUPPLY CHAIN RESILIENCE STRATEGIES AND PERFORMANCE OF SUPERMARKET CHAINS IN NAIROBI CITY COUNTY, KENYA

[1] Ndubi Vincent Omondi, [2] Dr. Ndeto Charles

[1]Masters Student, Jomo Kenyatta University of Agriculture and Technology
[2]Lecturer, Jomo Kenyatta University of Agriculture and Technology

ABSTRACT

Supermarket chains play a crucial role in the Kenyan economy and society by providing a variety of essential goods and services. However, supermarket chains in Kenya have faced significant performance challenges which have led to declined profitability and even closure. The general objective of the study was to determine the role of supply chain resilience strategies and performance of supermarket chains in Kenya. Specifically, to determine the role of risk management strategies on the performance of supermarkets in Kenya and to establish the role of supplier relationship management strategies on performance in supermarkets in Kenya. The study adopted descriptive research design. This study was conducted at the ministry of health. There are 773 Supermarkets in Kenya as of August 15, 2024; which is an 3.71% increase from 2023. This study focused on supermarket chains in Nairobi City County. According to Kenya Retail Report (2024) there 105 registered supermarkets in Nairobi County. The study therefore targeted 630 management employees comprising of 105 top managers, 210 middle level managers and 315 lower level managers. The study's sample size was reached at using Krejcie and Morgan sample size determination formula. The 239 respondents were chosen with the help of stratified random sampling technique. This study relied on both primary and secondary data. Primary data was collected through use of semi structured questionnaires. The study also conducted pilot test to test the validity and the reliability of the data collection instrument. The data collection instrument generated both qualitative and quantitative data. The study used both descriptive and inferential statistics for data analysis with the aid of Statistical Package for Social Sciences (SPSS version 25). Descriptive statistics such as mean, standard deviation, frequency and percentages were used in this study. In relation to inferential statistics, the study used correlation analysis. This was used to establish the relationship between the independent and the dependent variables. Data was then presented in a tables, bar charts and pie charts. The study concludes that risk management strategies have a significant effect on performance of supermarkets in Kenya. The study also concludes that supplier relationship management strategies have a significant effect on performance of supermarkets in Kenya. The study recommends that the management of supermarkets in Kenya should establish strategic partnerships with local suppliers while maintaining relationships with international vendors. By actively sourcing products from a diverse range of local suppliers, supermarkets can not only support the local economy but also ensure a more resilient supply chain.

Key Words: Supply Chain Resilience Strategies, Risk Management Strategies, Supplier Relationship Management Strategies, Performance in Supermarkets

Background of the Study

The global business environment is characterized by increasing complexity and unpredictability, often driven by technological advancements, social shifts, economic and political conditions, and the emergence of new competitors (Lee & Rha, 2016). The COVID-19 pandemic has further highlighted the vulnerability of supply chains (SCs) as complex and global networks to such disruptions. The coronavirus/SARS-CoV-2 (COVID-19) outbreak was declared as a "public health emergency of international concern" on January 30, 2020 (WHO, 2020). While most supply chains before the pandemic had limited geographical extent and conform to the standard single-trough, limited-duration profile outlined by Sheffi and Rice back in (2005), the impact of the pandemic on supply chains has been global, prolonged, and comprised a series of major shocks to companies' logistical systems.

One of the affected supply chains is in the retail sector and particularly Supermarkets. The sector is at the coalface of immediate impact and faces a significant challenge to respond to the emerging crisis effectively. Retailers have shifted their focus to protect employees and customers from the virus, while also contending with declining customer demand and threats from online and discount models (Michie, 2020). The disruption caused by the pandemic has affected the performance of supermarket operations, including inventory management, cycle times, productivity, agility, timely deliveries, quality, and reliability (Kapsali et al., 2019). Retailers are faced with the urgent task of adapting their operations and decision-making processes to the new reality in an agile manner (Bartik et al., 2020).

One of the immediate impacts of the pandemic on the retail sector, including supermarkets, has been the shift in consumer demand. Panic buying and stockpiling of essential goods, such as food and household supplies, led to empty store shelves and shortages in various products (Gereffi, 2020). On the other hand, the demand for non-essential products decreased as people focused on essential items (Nicola et al., 2020). These sudden shifts in demand put significant pressure on supermarkets to manage inventory effectively and ensure timely restocking of essential goods. In addition to changes in consumer demand, supermarkets have faced challenges related to supply chain disruptions. The pandemic has resulted in international transportation restrictions, closed borders, and reduced labor availability, which have hampered the flow of goods and caused delays in deliveries (Fortune, 2020; Singh et al., 2020). Retailers relying on imported products, especially perishable goods, have experienced difficulties in sourcing supplies, leading to shortages and supply chain failures (Sheffi & Rice, 2005). The increased distances between processing units and retail stores have also contributed to the severity of product shortages (Michie, 2021).

A key proposed solution the supply chain disruptions is the adoption of effective supply chain resilience strategies. The concept of supply chain resilience has gained attention in the literature, highlighting its importance in the face of disruptions and the need for thorough research in this area (Pettit et al., 2010). Christopher and Peck (2004) developed an initial framework for Supply Chain Resilience, defining it as the ability of a system to return to its original state or transition to a new, more desirable state after being disturbed. This definition has been widely referenced and describes the ability of a supply chain to withstand changes and converge back to its original or improved state (Piers Ribero & Barbosa-Povoa, 2018; Carvalho et al., 2012; Erol et al., 2010; Rice & Caniato, 2003; Xiao et al., 2012).

According to Hohenstein et al. (2015), supply chain resilience encompasses the supply chain's preparedness for unexpected risk events, the ability to respond and recover quickly from disruptions, and the potential to return to the original state or move towards a new, more desirable state. It aims to enhance customer service, market share, and financial performance. Supply chain resilience recognizes the importance of both absorbing shocks from extreme events and adapting to new circumstances (Brusset & Teller, 2017). It is considered a responsive capability for firm performance and a critical dimension for survival (Hohenstein et al., 2015). Supply chain resilience is thus crucial for supermarkets and the retail sector to

mitigate the impact of disruptions such as the COVID-19 pandemic. It is important to understand the strategies that firms have adopted and their impact on performance.

Statement of the Problem

The COVID-19 pandemic has posed greater challenges than ever before to supply chains. During this protracted global health crisis, supply chain managers had to rely predominantly on solutions designed for limited and predictable crises. In 2020, shortages of a variety of products were one of the most prominent topics in the media, policy discussions, and common discourse. The structure of demand shifted drastically. On the supply side, there were shuttered factories and bare store shelves Ozdemir et al., (2022). Prior to the pandemic, supply chain management focused on constructing supply chains that were agile, lean, sustainable, environmentally friendly, optimized, and efficient. While this have not been forgotten because of the pandemic, concerns have shifted significantly more so to supply chain resilience.

The literature has drawn attention to the idea of supply chain resilience, underlining its significance in the face of disruptions and the necessity for in-depth study in this field (Pettit et al., 2010). The ability of a supply chain to endure changes and converge back to its original or enhanced form is described by this term, which has been widely cited (Piers Ribero & Barbosa-Povoa, 2018; Carvalho et al., 2012; Erol et al., 2010; Rice & Caniato, 2003; Xiao et al., 2012). Although the supply chain resilience initiatives were on research agendas prior to the pandemic, they now play a different and more prominent role. Prior to the pandemic, common disruptions included terrorist attacks, plant fires, and the loss of key suppliers (Ponomarov, & Holcomb, 2009).

However, these and other disruptions discussed in the literature are typically local or regional, rarely affect demand structure, have a limited duration, and follow predictable risks such as strikes or insolvency. In the meantime, the literature has ignored black swan events like the COVID-19 pandemic. With its global reach and lengthy duration, the pandemic has had a greater impact on demand structure than on supply structure, and it has even affected financial systems. The COVID-19 pandemic arrived without a contingency plan or prior experience, unlike other disruptions. In other terms, we were taken by surprise (Moritz, 2020). No industry is immune to disruptions caused by pandemic including supermarkets which have been adversely affected.

Prior studies on supply chain resilience have primarily focused on theoretical aspects without comprehensive assessments of practices under the dimensions of exploitation and exploration (Ali et al., 2017). Additionally, only a few studies have examined supply chain resilience in the context of a major disruption like the COVID-19 pandemic (Ali et al., 2021; Ozdemir et al., 2022). The pandemic has tested the effectiveness of years of research and planning on supply chain resilience, revealing significant deficiencies in business continuity plans (Michie, 2020). Moreover, no studies have been conducted in Kenya specifically targeted on supply chain resilience among supermarket and hence the need for this study.

Objectives of the Study

The general objective of the study was to determine the role of supply chain resilience strategies and performance of supermarket chains in Kenya

Specific Objectives

i. To determine the role of risk management strategies on the performance of supermarkets in Kenya.
ii. To establish the role of supplier relationship management strategies on performance in supermarkets in Kenya

LITERATURE REVIEW

Theoretical Review

Risk-Return Tradeoff Theory

The Risk-Return Tradeoff Theory developed by Harry Markowitz (1952) is a fundamental concept in finance and investment that posits a direct relationship between the level of risk associated with an investment and the expected return from that investment. This theory suggests that investors must balance their desire for the highest possible returns against their tolerance for risk. In essence, higher potential returns are typically accompanied by higher levels of risk, while safer investments usually yield lower returns. This tradeoff is crucial for investors when making decisions about their portfolios, as it helps them align their investment choices with their financial goals and risk appetite. At the core of the Risk-Return Tradeoff Theory is the understanding that risk can take various forms, including market risk, credit risk, liquidity risk, and operational risk, among others. Each type of risk affects the potential return on an investment differently. For instance, stocks, which are generally considered riskier than bonds, tend to offer higher returns over the long term to compensate investors for the increased uncertainty. Conversely, government bonds, seen as safer investments, typically provide lower returns. This differential in risk and return helps investors assess which assets might fit their investment strategies based on their individual risk tolerance.

The theory also underscores the importance of diversification in managing risk. By spreading investments across a range of assets, investors can mitigate the overall risk in their portfolios. Diversification helps reduce the impact of any single investment's poor performance, as losses in one area may be offset by gains in another. This strategic approach allows investors to pursue higher returns while keeping their overall risk profile within acceptable limits. Portfolio management techniques, such as the Capital Asset Pricing Model (CAPM), further elaborate on this relationship by quantifying the expected return of an asset based on its risk compared to the market as a whole.

The Risk-Return Tradeoff Theory is built on several key assumptions that simplify the relationship between risk and return. One fundamental assumption is that investors are rational actors who seek to maximize their returns for a given level of risk. This implies that they will make investment decisions based solely on quantitative factors, evaluating potential returns against associated risks. Another assumption is that markets are efficient, meaning that all available information is reflected in asset prices. This efficiency suggests that investors cannot consistently achieve higher returns without taking on additional risk, as any perceived mispricing would be quickly corrected by the market. Additionally, the theory assumes that risk can be measured and quantified, primarily through metrics such as standard deviation and beta. This reliance on measurable risk allows investors to compare different assets systematically. The model also presumes that investors have homogeneous expectations, meaning that all investors have the same outlook regarding future returns and risks associated with an asset. This assumption creates a simplified environment where risk-return assessments can be made uniformly, disregarding individual investor perspectives and preferences.

Despite its foundational role in finance, the Risk-Return Tradeoff Theory has faced several critiques. One significant criticism is its reliance on the rational investor assumption. In practice, investor behavior can be influenced by psychological factors, emotions, and cognitive biases, leading to decisions that deviate from rational expectations. For instance, phenomena like herd behavior or overconfidence can cause investors to underestimate risks or chase after high returns, undermining the theory's predictive power. Another critique concerns the theory's oversimplification of risk. While it emphasizes measurable risks like volatility, it often neglects other qualitative factors that can influence investment decisions, such as regulatory changes, geopolitical events, or technological disruptions. These factors can significantly alter the risk landscape, making it difficult to rely solely on historical data and traditional risk metrics. Furthermore, the assumption of market efficiency is often challenged, as markets can exhibit inefficiencies, leading to mispricings and opportunities that are not easily captured by the risk-

return framework. This theory was relevant in determining the role of risk management strategies on the performance of supermarkets in Kenya.

Social Exchange Theory

Social Exchange Theory (SET) is a conceptual framework that explores social interactions through the lens of cost-benefit analysis and reciprocal exchanges. Developed by George Homans (1958), this theory posits that human relationships are formed and maintained based on the perceived rewards and costs involved in those interactions. Individuals engage in social exchanges with the expectation that their contributions will be reciprocated in some manner, whether through tangible benefits like money or intangible rewards such as affection, respect, or social support. Thus, relationships are viewed as a series of exchanges where participants seek to maximize benefits while minimizing costs. At the core of Social Exchange Theory is the idea that individuals assess the value of their relationships based on the outcomes of these exchanges. This assessment involves comparing the perceived rewards obtained from a relationship against the costs incurred. Rewards may include emotional support, companionship, and status, while costs could encompass time, effort, and potential emotional pain. If the perceived rewards outweigh the costs, individuals are likely to maintain the relationship. Conversely, if costs exceed rewards, individuals may choose to withdraw or terminate the relationship. This calculus can lead to various types of relationships, including those characterized by equity, where benefits and contributions are balanced, and those marked by inequity, which can lead to dissatisfaction and conflict.

Social Exchange Theory also emphasizes the role of reciprocity in fostering social bonds. The expectation of mutual benefit creates a foundation for trust and cooperation in relationships. For instance, in personal relationships, individuals often engage in acts of kindness and support with the anticipation that these gestures will be reciprocated. In broader social contexts, such as workplace dynamics or community interactions, reciprocal exchanges can enhance collaboration and collective goals. This reciprocal nature of social exchanges underscores the importance of social norms and cultural values in shaping expectations around give-and-take in relationships.

Social Exchange Theory (SET) is based on several key assumptions that shape its understanding of human relationships and interactions. One fundamental assumption is that individuals are rational actors who engage in cost-benefit analyses when forming and maintaining relationships. This suggests that people will consciously evaluate the potential rewards and costs of their interactions, seeking to maximize their benefits while minimizing their losses. Another important assumption is the idea of reciprocity, which posits that social exchanges are predicated on the expectation that individuals will return favors or support. This expectation fosters trust and cooperation, reinforcing social bonds and encouraging ongoing exchanges. Additionally, SET assumes that relationships are inherently transactional in nature. This means that individuals approach their interactions with the goal of achieving specific outcomes, whether those are emotional support, social status, or material gains. This transactional view implies that the value of a relationship can be quantified in terms of the tangible and intangible rewards it provides. Furthermore, the theory assumes that individuals will weigh these outcomes against their alternatives, leading them to choose relationships that offer the greatest perceived benefits relative to their costs.

Despite its strengths, Social Exchange Theory has faced several critiques that highlight its limitations. One significant critique is that it can be overly reductionist, reducing the complexity of human relationships to mere calculations of rewards and costs. This perspective may overlook the emotional, cultural, and ethical dimensions of interactions that cannot be easily quantified. For instance, love, loyalty, and commitment may motivate individuals to engage in relationships even when the costs outweigh the perceived rewards. Such emotional factors challenge the rational actor assumption and suggest that human behavior often defies simple economic models. Another critique of SET is its assumption of rationality in human behavior. Critics argue that people often act based on emotions, social norms, and cognitive

biases rather than through calculated analyses. Factors such as altruism, empathy, and social obligations can significantly influence relationship dynamics, leading individuals to engage in exchanges without expecting a direct return. This complexity suggests that the theory may oversimplify the motivations behind social interactions. This theory was relevant in establishing the role of supplier relationship management strategies on performance in Kenyan supermarkets.

Conceptual Framework

Maxwell, (2019) avers that a conceptual model is a research tool for modelling theoretical relationships of constructs under study for further investigation. It is the system of concepts, assumptions and expectations about phenomenon under consideration (Maxwell, 2020)

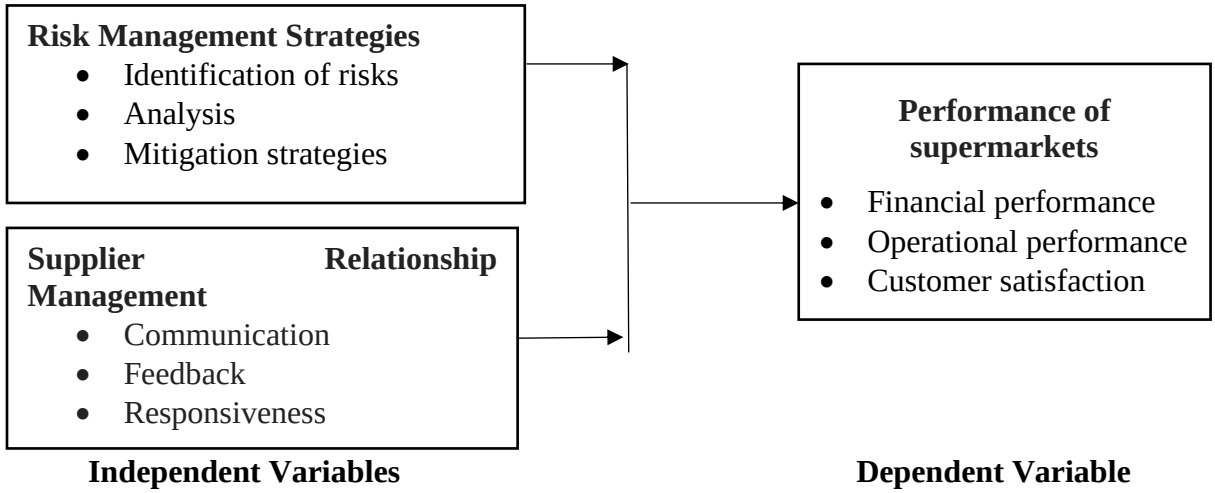

Figure 2. 1: Conceptual Framework

Risk Management Strategies

Risk Management Strategies are systematic approaches that organizations use to identify, assess, and mitigate risks that could negatively impact their operations, objectives, or assets. These strategies aim to minimize the potential for loss while maximizing opportunities, ensuring that the organization can navigate uncertainties effectively (Nisma *et al*, 2024). The identification of risks is a critical first step in the risk management process, involving the systematic recognition of potential threats that could impact an organization's operations and objectives. This process can include a variety of techniques, such as brainstorming sessions, interviews with stakeholders, and analysis of historical data (Jones *et al*, 2023). Organizations often employ tools like checklists and risk matrices to facilitate the identification process. By examining both internal and external environments, companies can uncover a wide range of risks, including operational failures, market fluctuations, regulatory changes, and cybersecurity threats. Early identification of risks is essential, as it lays the groundwork for effective analysis and subsequent management. By being proactive, organizations can better prepare for uncertainties and develop a comprehensive understanding of their risk landscape (Koprulu *et al*, 2019).

Once risks have been identified, the next step is to conduct a thorough analysis to evaluate their potential impact and likelihood. This analysis helps organizations prioritize risks based on their severity and the urgency with which they need to be addressed. Various methods can be used for risk analysis, including qualitative approaches (such as expert judgment and scenario analysis) and quantitative techniques (like statistical modeling and simulations). The outcome of this analysis is typically a risk assessment matrix that categorizes risks into different levels, enabling decision-makers to focus on the most critical threats. Understanding the relationships between different risks is also crucial, as some risks may be interrelated and exacerbate one another. This analytical phase not only informs mitigation strategies but also enhances the organization's overall awareness and preparedness for potential challenges (Eber *et al*, 2019).

Mitigation strategies are the action plans developed to address identified and analyzed risks, aiming to reduce their likelihood or minimize their impact on the organization. These strategies can take various forms, including risk avoidance (changing plans to eliminate the risk), risk reduction (implementing measures to lessen the risk), risk sharing (transferring risk to third parties, such as through insurance or outsourcing), and risk acceptance (acknowledging risks when the potential impact is deemed manageable). Effective mitigation strategies require careful planning, resource allocation, and continuous monitoring to ensure they remain relevant as conditions change. By implementing these strategies, organizations can enhance their resilience, protect valuable assets, and maintain operational continuity, ultimately positioning themselves for long-term success in an uncertain environment (Soares *et al*, 2019).

Supplier Relationship Management

Supplier Relationship Management (SRM) is a strategic approach to managing a company's interactions and relationships with its suppliers. The goal of SRM is to maximize the value derived from these partnerships while minimizing risks and costs. This involves not only the procurement of goods and services but also fostering collaboration, improving communication, and building long-term relationships with suppliers (Zhang, *et al*, 2021). Effective communication is the cornerstone of successful Supplier Relationship Management (SRM). Clear and consistent communication between an organization and its suppliers fosters transparency and trust, which are essential for building strong partnerships. This involves not only sharing essential information about expectations, timelines, and specifications but also maintaining open lines for discussions about challenges and opportunities. Utilizing various communication channels—such as meetings, emails, and collaborative platforms—ensures that both parties are aligned and informed. Additionally, effective communication can help to preempt potential issues by addressing concerns before they escalate, leading to smoother operations and a more resilient supply chain (Koprulu *et al*, 2019).

Feedback plays a crucial role in enhancing supplier relationships and overall performance. Regularly soliciting and providing feedback allows both the organization and the supplier to identify areas for improvement and recognize successes. Constructive feedback should be specific, actionable, and timely, enabling suppliers to understand their performance in relation to agreed-upon metrics. Moreover, a culture of open feedback encourages suppliers to share their insights about the organization's processes, which can lead to mutual improvements and innovation. By fostering an environment where feedback is valued, organizations can strengthen their partnerships and drive continuous improvement in supply chain performance (Jones *et al*, 2023).

Responsiveness is a vital aspect of effective Supplier Relationship Management, encompassing both how quickly and effectively an organization and its suppliers react to inquiries, changes, and issues. A responsive approach enhances collaboration and problem-solving capabilities, ensuring that disruptions are addressed promptly and efficiently. For organizations, being responsive means having the ability to adjust orders, communicate changes, and provide timely support to suppliers. Conversely, suppliers that are responsive to the needs and concerns of their partners can adapt more quickly to changes in demand or production requirements. Cultivating a responsive relationship not only minimizes downtime and enhances operational efficiency but also reinforces trust and loyalty, positioning both parties for long-term success (Nisma *et al*, 2024).

Empirical Review

Risk Management Strategies and Organization Performance

Nisma *et al* (2024) conducted a case study on Understanding Risk and Uncertainty Management: A Qualitative Inquiry into Developing Business Strategies Amidst Global Economic Shifts, Government Policies, and Market Volatility. The study employs a qualitative inquiry approach, utilizing systematic literature review and thematic analysis to identify emerging themes and patterns in contemporary business environments. The research findings reveal several key insights regarding adaptive strategies, scenario planning, and technological

advancements in risk management. Firstly, adaptive strategies are crucial for organizational competitiveness and sustainability, emphasizing agility, innovation, and dynamic capabilities. Secondly, scenario planning facilitates strategic foresight, resilience, and preparedness by exploring alternative futures and assessing their potential impacts. Thirdly, technological advancements, particularly in AI and data analytics, revolutionize risk assessment capabilities and strategic decision-making processes, enabling proactive risk management and enhanced resilience. The study underscores the importance of fostering a culture of innovation, investing in technological capabilities, and integrating scenario planning into strategic planning processes to navigate uncertainties effectively.

Jones *et al* (2023) conducted a study on supply chain risk management in the era of globalization. The research delves into regional variations, technological integrations, and the impact of the COVID-19 pandemic on Supply Chain Risk Management. It adopts the Resource-Based View to analyze how firms cultivate and leverage unique resources for resilient Supply Chain Risk Management. The findings emphasize the need for holistic, collaborative, and tech-savvy approaches to address risks arising from geopolitical tensions, trade disputes, and regulatory changes. The study contributes to theory by extending RBV to Supply Chain Risk Management, offering practical insights for businesses engaged in global supply chains, and providing policymakers with guidance for regulations that support sustainability and risk-aware decision-making. Overall, the study advances our understanding of Supply Chain Risk Management in the globalized era and guides future research and policy development.

Koprulu *et al* (2019) conducted a case study on supply chain management in the textile industry: a supplier selection model with the analytical hierarchy process The aim of this study is to emphasize the importance the vendor selection problem and its relation to the supply chain strategy and goals. First, the current conditions of the textile or apparel industry are analyzed and the key factors for a successful supply chain considering the globalization of the industry are discussed. An analytical hierarchy process model that an apparel company can use for the selection of suppliers is presented and a supplier relationship management strategy is created based on the results of the model. In addition, strategic priorities for the supplier selection problem are identified and weights are developed to select the right supplier that fits the company's strategy. Finally, the outcome and the implications of the model for implementation are discussed.

Supplier Relationship Management Strategies and Organization Performance

Eber *et al* (2019) conducted a case study on Using Key Supplier Relationship Management to Enable Supply Chain Risk Management in the Automotive Industry An exploratory qualitative study conducted interviews with five auto manufacturers and five original equipment manufacturers or first-tier suppliers. Analysis found both groups are interested in doing so but that the practice is not wide-spread. Inhibitors include a continuing emphasis on cost, quality and supplier capacity, issues regarding new and smaller supply chain actors, sudden process and production changes impacting suppliers, and lack of auto manufacturer communication and information sharing

Soares *et al* (2019) conducted a case study on the influence of inter-firm relationships on Supply Chain Quality Management Using a quantitative survey approach of a sample of UK firms, this study offers a response to such void in the existing research and makes an attempt to empirically assess the impact of inter-firm relationships on suply chain quality management practices. Findings show significant results for the association between the inter-firm relationships and supply chain quality management

In China Zhang, Y *et al* (2021) conducted a case study on multi-echelon inventory optimization for fresh products in supply chains In this paper, on the basis of considering the perishable characteristics of fresh products, combining the deterioration rate with the inventory control model, a multi-echelon inventory control model for fresh products is designed and optimized,

and the optimal solution from the whole supply chain is obtained through the optimal fitness function by genetic algorithm.

RESEARCH METHODOLOGY

The study adopted descriptive research design. The unit of analysis is what is being targeted in the research. There are 773 Supermarkets in Kenya as of August 15, 2024; which is an 3.71% increase from 2023. This study focused on supermarket chains in Nairobi City County. According to Kenya Retail Report (2024) there 105 registered supermarkets in Nairobi County. The study therefore targeted 630 management employees comprising of 105 top managers, 210 middle level managers and 315 lower level managers. The study's sample size was reached at using Krejcie and Morgan sample size determination formula (Russell, 2019). Using this formula a representative sample was obtained. The 239 respondents were chosen with the help of stratified random sampling technique. Stratified random sampling technique was used since the population of interest is not homogeneous and could be sub-divided into groups or strata to obtain a representative sample. This sampling technique divides the population into groups or strata. The strata are reached upon on the basis of the shared traits (Singpurwalla, 2019). This research used a questionnaire to collect primary data. The researcher collected questionnaires, code them, and enter them into the Software Package for Social Sciences (SPSS version 26) for analysis. Qualitative data collected was analysed using content analysis and presented in prose form. Inferential statistics including regression and correlation analysis was used in the study.

DATA ANALYSIS AND FINDINGS

The sample size of the study was 239 respondents. The questionnaires were dropped off and picked up later after they were filled by the respondents. Out of 239 questionnaires which were distributed, 215 were duly filled and returned. The drop-off and pick-up-later method yielded the high response rate of 89.95%. According to Babbie (2019), a response rate of 75 per cent is adequate for analysis as well as making conclusions and inferences about a population. In addition, Kumar (2019) indicates that a response rate of 60% and above is acceptable for analysis. Further, Egbert (2019) indicates that a response rate of 50% should be considered average, 60% to 70% considered adequate while a response rate of above 70% should be regarded as excellent. This implies that the response rate of 86.7 % was adequate for analysis, drawing conclusions and reporting.

Descriptive statistics

Risk Management Strategies and Performance of Supermarkets

The first specific objective of the study was to determine the role of risk management strategies on the performance of supermarkets in Kenya. The respondents were requested to indicate their level of agreement on various statements relating to risk management strategies and the performance of supermarkets in Kenya. The results were as presented in Table 1.

From the results, the respondents agreed that their organization has a systematic approach to identifying potential risks (M=3.952, SD=0.821). In addition, the respondents agreed that they regularly conduct risk assessments to uncover new and emerging risks (M=3.905, SD=0.854). Further, the respondents agreed that they analyze identified risks to understand their potential impact on their organization (M=3.873, SD=0.761). The respondents also agreed that risk analysis is an on-going process in their organization, not a one-time event (M=3.820, SD=0.756).

From the results, the respondents agreed that their organization establishes clear strategies for mitigating identified risks (M=3.798, SD=0.886). Further, the respondents agreed that they regularly review and update their risk mitigation plans based on new information (M=3.783, SD=0.676).

Table 1: Risk Management Strategies and Performance of Supermarkets

	Mean	Std. Deviation
Our organization has a systematic approach to identifying potential risks.	3.952	0.821
We regularly conduct risk assessments to uncover new and emerging risks.	3.905	0.854
We analyze identified risks to understand their potential impact on our organization.	3.873	0.761
Risk analysis is an ongoing process in our organization, not a one-time event.	3.820	0.756
Our organization establishes clear strategies for mitigating identified risks.	3.798	0.886
We regularly review and update our risk mitigation plans based on new information.	3.783	0.676
Aggregate	**3.855**	**0.792**

Supplier Relationship Management Strategies and Performance of Supermarkets

The second specific objective of the study was to establish the role of supplier relationship management strategies on performance in Kenyan supermarkets. The respondents were requested to indicate their level of agreement on various statements relating to supplier relationship management strategies and performance in Kenyan supermarkets. The results were as presented in Table 2.

From the results, the respondents agreed that their organization maintains open and transparent communication with suppliers (M=3.928, SD=0.886). In addition, the respondents agreed that they regularly share relevant information with their suppliers to facilitate collaboration (M=3.911, SD=0.889). Further, the respondents agreed that they provide constructive feedback to their suppliers on their performance (M=3.831, SD=0.779). The respondents also agreed that supplier feedback is regularly solicited and taken into account in their processes (M=3.816, SD=0.674).

The respondents agreed that their organization is quick to respond to supplier inquiries and concerns (M=3.801, SD=0.787). Further, the respondents agreed that they have established protocols to ensure prompt communication with suppliers (M=3.781, SD=0.577).

Table 2: Supplier Relationship Management Strategies

	Mean	Std. Deviation
Our organization maintains open and transparent communication with suppliers.	3.928	0.886
We regularly share relevant information with our suppliers to facilitate collaboration.	3.911	0.889
We provide constructive feedback to our suppliers on their performance.	3.831	0.779
Supplier feedback is regularly solicited and taken into account in our processes.	3.816	0.674
Our organization is quick to respond to supplier inquiries and concerns.	3.801	0.787
We have established protocols to ensure prompt communication with suppliers.	3.781	0.577
Aggregate	**3.845**	**0.765**

Performance of Supermarkets

The respondents were requested to indicate their level of agreement on various statements relating to performance in Kenyan supermarkets. The results were as presented in Table 3.

From the results, the respondents agreed that their supermarket consistently meets its revenue targets (M=3.876, SD=0.855). In addition, the respondents agreed that they effectively manage their costs to enhance profitability (M=3.803, SD=0.765). Further, the respondents agreed that their supermarket maintains efficient inventory management practices (M=3.783, SD=0.668). The respondents also agreed that they optimize staff scheduling to meet customer demand effectively (M=3.706, SD= 0.798).

The respondents agreed that their customers consistently express high levels of satisfaction with their shopping experience (M=3.646, SD=0.646). From the results, the respondents agreed that they actively seek customer feedback to improve their services (M=3.639, SD=0.837).

Table 3: Performance of Supermarkets

	Mean	**Std. Deviation**
Our supermarket consistently meets its revenue targets.	3.876	0.855
We effectively manage our costs to enhance profitability	3.803	0.765
Our supermarket maintains efficient inventory management practices.	3.783	0.668
We optimize staff scheduling to meet customer demand effectively.	3.706	0.798
Our customers consistently express high levels of satisfaction with their shopping experience.	3.646	0.646
We actively seek customer feedback to improve our services	3.639	0.837
Aggregate	**3.742**	**0.762**

Correlation Analysis

The present study used Pearson correlation analysis to determine the strength of association between independent variables (risk management strategies and supplier relationship management strategies) and the dependent variable (performance of supermarket chains in Kenya). Pearson correlation coefficient range between zero and one, where by the strength of association increase with increase in the value of the correlation coefficients.

Table 4: Correlation Coefficients

		Performance of Supermarkets	**Risk Management Strategies**	**Supplier Relationship Management Strategies**
Performance of Supermarkets	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	215		
Risk Management Strategies	Pearson Correlation	.811**	1	
	Sig. (2-tailed)	.003		
	N	215	215	
Supplier Relationship Management Strategies	Pearson Correlation	.856**	.098	1
	Sig. (2-tailed)	.002	.146	
	N	215	215	215

The results revealed that there is a very strong relationship between risk management strategies and performance of supermarket chains in Kenya (r = 0.811, p value =0.003). The relationship was significant since the p value 0.003 was less than 0.05 (significant level).The findings are in line with the findings of Becker *et al* (2019) that there is a very strong relationship between risk management strategies and performance of supermarkets.

The results also revealed that there was a very strong relationship between supplier relationship management strategies and performance of supermarket chains in Kenya (r = 0.856, p value =0.002). The relationship was significant since the p value 0.002 was less than 0.05 (significant level). The findings are in line with the results of Huselid (2019) who revealed that there is a very strong relationship between supplier relationship management strategies and performance of supermarkets.

Regression Analysis

Multivariate regression analysis was used to assess the relationship between independent variables (risk management strategies and supplier relationship management strategies) and the dependent variable (performance of supermarket chains in Kenya).

Table 5: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.226	0.058		3.896	0.000
	risk management strategies	0.342	0.093	0.343	3.677	0.003
	supplier relationship management strategies	0.360	0.094	0.359	3.830	0.001

a Dependent Variable: performance of supermarkets in Kenya

The regression model was as follows:

$$\mathbf{Y = 0.226 + 0.342X_1 + 0.360X_2 + \varepsilon}$$

The results revealed that risk management strategies has significant effect on performance of supermarket chains in Kenya, β1=0.342, p value= 0.003). The relationship was considered significant since the p value 0.003 was less than the significant level of 0.05. The findings are in line with the findings of Becker *et al* (2019) that there is a very strong relationship between risk management strategies and performance of supermarkets.

In addition, the results revealed that supplier relationship management strategies has significant effect on performance of supermarket chains in Kenya, β1=0.360, p value= 0.001). The relationship was considered significant since the p value 0.001 was less than the significant level of 0.05. The findings are in line with the results of Huselid (2019) who revealed that there is a very strong relationship between supplier relationship management strategies and performance of supermarkets.

Conclusions

The study concludes that risk management strategies have a significant effect on performance of supermarkets in Kenya. The study findings revealed that identification of risks, analysis and mitigation strategies influences performance of supermarkets in Kenya.

The study also concludes that supplier relationship management strategies have a significant effect on performance of supermarkets in Kenya. The study findings revealed that communication, feedback and responsiveness influences performance in Kenyan supermarkets.

Recommendations

the study recommends that the management of supermarkets in Kenya should develop a comprehensive risk assessment framework that regularly evaluates both internal and external threats to the supply chain. This framework should incorporate scenario planning to anticipate potential disruptions, such as fluctuations in demand, supply shortages, or economic changes. By conducting regular risk assessments and involving key stakeholders in the process, supermarkets can identify vulnerabilities and prioritize them based on their potential impact.

The study also recommends that the management of supermarkets in Kenya should implement a structured collaboration framework that emphasizes ongoing communication and partnership development. This framework should include regular performance reviews, joint planning sessions, and feedback mechanisms that allow both supermarkets and suppliers to align their goals and expectations.

Suggestions for Further Studies

This study was limited to the role of supply chain resilience strategies and performance of supermarket chains in Kenya hence the study findings cannot be generalized to organization performance in other organizations in Kenya. The study therefore suggests further studies on the role of supply chain resilience strategies on organization performance at other organizations in Kenya.

REFERENCES

Afrăsinei-Zevoianu, C. (2017). Managerial challenges of the contemporary society. *Proceedings Managerial Challenges of the Contemporary Society, 10*(1), 22-38.

Akbar, H. M., & Isfianadewi, D. (2023). The role of supply chain resilience to relationships supply chain risk management culture and firm performance during disruption. *International Journal of Research in Business and Social Science, 12*(2), 643–652.

Alfarsi, F., Lemke, F., & Yang, Y. (2019). The importance of supply chain resilience and underlying mechanisms in relation to firm reputation attributes. *Procedia Manufacturing*. https://doi.org/10.1016/j.promfg.2020.01.295

Ali, S., Fang, Y., & Veeraraghavan, S. (2017). Supply-chain resilience, inventory management and financial performance in the oil and gas industry: A conceptual framework. *International Journal of Production Economics, 183*, 700-709.

Andersen, M. L., Hansen, S. S., Johannesen, N., & Sheridan, A. (2020). Consumer spending during the COVID-19 pandemic: Evidence from Danish transaction data. *COVID Economics, 2*, 40-70.

Aslam, A., Ahmed, W., Hussain, Z., Ali, I., & Jabeen, F. (2020). Supply chain resilience: A systematic literature review and future research agenda. *Technological Forecasting and Social Change, 156*, 120023.

Badhotiya, G. K., Soni, G., Jain, V., Joshi, R., & Mittal, S. (2022). Assessing supply chain resilience to the outbreak of COVID 19 in Indian manufacturing firms. Retrieved from file:///C:/Users/user/Downloads/.

Bartik, A. W., Bertrand, M., Cullen, Z. B., Glaeser, E. L., Luca, M., & Stanton, C. T. (2020). How are small businesses adjusting to COVID-19? Early evidence from a survey. *National Bureau of Economic Research* Working Paper No. 26989.

Bastani, P., Dehghan, Z., Kashf, S. M., Dorosti, H., Mohammadpour, M., Mehralian, G., & Ravangard, R. (2021). Strategies to improve pharmaceutical supply chain resilience under politico-economic sanctions: The case of Iran. *Journal of Pharmaceutical Policy and Practices, 14*(56), 1-14.

Becker, D., Rojas, M., & Thompson, P. (2019). Risk management strategies and performance of supermarkets. *Journal of Retailing and Consumer Services, 53*(2), 311-323.

Brusset, X., & Teller, C. (2017). Supply chain capabilities, risks, and resilience. *International Journal of Production Economics, 184*, 59-68.

Butter, A. G. (2012). Transaction management perspective on procurement in the era of globalization. *International Journal of Procurement Management, 5*(2), 1-5.

Chelimo, S., & Ndeto, C. (2023). Influence of supplier diversification strategies on organizational performance of state corporations in Kenya. *International Journal of Social Sciences Management and Entrepreneurship, 7*(1), 610-622.

Choi, T. M. (2020). Retail omni-channel operations in COVID-19: Strategic considerations and recommendations. *Annals of Operations Research, 291*(1-2), 295-305.

Christopher, M., & Peck, H. (2004). Building the resilient supply chain. *The International Journal of Logistics Management, 15*(2), 1-13.

Coolidge, A., & Enquirer, T. (2020, March 9). Coronavirus: Google, Facebook encourage 'work from home'. *The Cincinnati Enquirer*. https://www.cincinnati.com/story/news/2020/03/09/coronavirus-ohio-google-facebook-encourage-work-home/5008794002/

Copeland, L. (2020, March 10). Amazon, Google, Facebook, Microsoft tell Seattle employees to work from home because of coronavirus outbreak. *The Wall Street Journal*. https://www.wsj.com/articles/google-facebook-tell-seattle-employees-to-work-from-home-because-of-coronavirus-11583744610

Donthu, N., & Gustafsson, A. (2020). Effects of COVID-19 on business and research. *Journal of Business Research, 117*, 284-289.

Eber, L., Vega, D., & Grant, D. B. (2019). Supply chain risk management in the automotive industry. *Journal of Supply Chain Management: Research and Practice*, *13*(1), 1-4.

Fernandes, N. (2020). Economic effects of coronavirus outbreak (COVID-19) on the world economy. Available at SSRN 3557504.

Gereffi, G. (2020). COVID-19 and the future of global supply chains. *Business and Politics, 22*(3), 317-328.

Hohenstein, N. O., Feisel, E., Hartmann, E., & Giunipero, L. (2015). Research on the phenomenon of supply chain resilience. *International Journal of Physical Distribution & Logistics Management, 45*(1/2), 90-117.

Jones, S. (2024). Supply chain risk management in the era of globalization. *European Journal of Supply Chain Management, 1*(1), 11-21.

Kapsali, M., Roehrich, J. K., & Akhtar, P. (2019). Performance measurement in supply chains: A systematic literature review and research agenda. *International Journal of Production Research, 57*(7), 2084-2103.

Lee, H., & Rha, J. (2016). Supply chain resilience in a volatile environment. *International Journal of Production Economics, 182*, 593-611.

Michie, J. (2020). Pandemic purchasing: A COVID-19 case study in consumer behaviour. *Journal of Retailing and Consumer Services, 57*, 102357.

Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., ... & Agha, R. (2020). The socio-economic implications of the coronavirus pandemic (COVID-19): A review. *International Journal of Surgery, 78*, 185-193.

Ozdemir, D., Sharma, M., Dhir, A., & Daim, T. (2022). Supply chain resilience during the COVID-19 pandemic. *Technology in Society, 68*, 101847.

Pettit, T. J., Fiksel, J., & Croxton, K. L. (2010). Ensuring supply chain resilience: Development and implementation of an assessment tool. *Journal of Business Logistics, 31*(1), 1-21.

Ponomarov, S. Y., & Holcomb, M. C. (2009). Understanding the concept of supply chain resilience. *The International Journal of Logistics Management, 20*(1), 124-143.

Rice, J. B., & Caniato, F. (2003). Building a secure and resilient supply network. *Supply Chain Management Review, 7*(5), 22-30.

Sheffi, Y., & Rice, J. B. (2005). A supply chain view of the resilient enterprise. *MIT Sloan Management Review, 47*(1), 41-48.

Singh, R. K., Kant, R., & Vatsa, A. (2020). COVID-19 and logistics: Challenges and emerging best practices. *International Journal of Physical Distribution & Logistics Management, 50*(6/7), 661-683.

Verma, R., & Gustafsson, A. (2020). COVID-19 and future disruptions in global supply chains. *Industrial Marketing Management, 88*, 215-217.

World Health Organization (WHO). (2020b). Coronavirus disease (COVID-19) weekly epidemiological update. https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---27-september-2020

Zhang, Y., Chai, Y., & Ma, L. (2021). Research on multi-echelon inventory optimization for fresh products in supply chains. *Sustainability, 13*(2), 1-2.