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INFLUENCE OF SUPPLY CHAIN DISRUPTION MANAGEMENT PRACTICES ON PERFORMANCE OF FOOD AND BEVERAGE COMPANIES IN NAIROBI CITY COUNTY, KENYA

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ABSTRACT

The purpose of the case study was to establish how the supply chain disruption management practices implemented by food and beverage companies in Nairobi County influence their performance. A quantitative research approach was adopted. The researchers utilized questionnaires to collect data from 149 middle-level management employees of 46 large food and beverage companies in Nairobi County. Descriptive and inferential data analysis techniques were used to describe the management practices utilized and determine how they affect the companies' performance. The findings indicated that food and beverage companies in Nairobi use supply chain innovativeness (M = 4.37, SD = .66), strategic sourcing (M = 4.34, SD = .67), inventory control (M = 4.34, SD = .71), and supplier diversification (M = 4.22, SD = .71) practices to manage supply disruptions. There were strong positive correlations between performance and strategic sourcing (r = .761, p < 0.001), inventory controlling (r = .507, p < 0.001), and supplier diversification (r = .503, p < 0.001), while supply innovativeness (r = .749, p < 0.001) was negatively correlated. Nairobi is a key economic and innovation hub for East and Central Africa. The study findings provide insights into practical and effective supply chain disruption management practices useful in the region. The findings are relevant to different industries that rely on similar supply disruption management practices in Kenya. The study findings provide practical solutions helpful for protecting against disruptions that threaten the country's economy and food security. The study established the existing research gaps regarding the implications of supply chain practices in Kenya and other African economies. The findings reflect a need for further research regarding the extent to which individual supply disruption management practices affect the performance of businesses

Keywords: - *Supply chain disruption management, supply chain in Kenya, food and beverage manufacturing, strategic sourcing, inventory control, supply chain innovation, supply diversification.*

1. INTRODUCTION

Supply chain (SC) disruptions result in significant negative outcomes in business globally, including loss of revenue and reputational damage among others. The manufacturing sector relies upon proficient supply chains to facilitate the designing, development, and complete product building to maintain productivity and profitability [1]. To maintain profitability and improve production efficiency, manufacturing companies must be able to predict, identify,

address, and learn from SC disruptions [2]. The business environment is constantly changing with innovations and challenges emerging resulting in disruptions in their SCs, which are also becoming longer and more complex [3].
The increasing interconnectedness of the food and beverage manufacturing industry has been attributed to longer and more complex SCs, which require effective management to maintain and improve performance [2]. The food and beverage SCs are highly intricate and vulnerable to various disruptions, including cost fluctuations, quality issues, and time delays, among others [1]. These disruptions can be attributed to external factors such as natural disasters, geopolitical events, and transportation issues, among others. Additionally, internal factors such as poor inventory management, overreliance on limited suppliers, and production challenges cause SC disruptions [3].
In Kenya, food processing and beverage manufacturing form the largest component of the country's manufacturing industry [4]. The country's manufacturing sector is also vulnerable to various external and internal SC disruptions resulting from technological transformations, political climate, changes in the regulatory framework, and global market changes, among others [5]. Some of the specific challenges disrupting SCs in the food and beverage manufacturing industry in Kenya include persistent droughts, political uncertainties, high costs of production, competition from imports, and high credit scores [5]). As a result, SC disruptions are highly prevalent in Kenya, hence the need for the implementation of effective SC disruption management practices.
Supply chain management practices such as supply chain agility, diversification of supply base, management of the demands, and promoting innovativeness, among others, are implemented to address the unique challenges affecting the food and beverage companies in Kenya [6]. The implementation of SC disruption management practices not only saves the companies from potential losses but also affects their performance in different metrics [7]. The project sought to establish how the SC disruption management practices implemented in food and beverage companies affect their performance.

1.1 Background

Globally, manufacturing enterprises experience major supply chain disruptions ranging from natural disasters to human errors, and poor relationships across the world. The occurrence of severe calamities like the Thailand floods and Japan's earthquake and tsunami in 2011 affected the SCs of foods & beverages, electronics, and motors resulting in poor firms' reputation, SC performance, and profitability, among others [8]. As a result of the losses resulting from SC disruptions, companies invest in SC disruption management mechanisms to minimize losses arising from possible disruptions [8]. A 2013 global survey by the World Economic Forum and Accenture, indicated that 80% of the surveyed firms consider managing SC disruptions a priority [9].
In Africa, some of the causes of SC disruptions are unique to the region and may differ from country to country. Corruption, bureaucratic bottlenecks, machine and equipment failures, and overcrowding in transportation channels, among others are some of the known causes of SC disruptions in African countries [10]. Additionally, some of the SC disruptions, that are out of control for the affected businesses have persisted for decades and are expected to continue for the foreseeable future, although various governments have made efforts to improve efficiency such as the privatization of seaport terminals [11] [10]. Managing SC disruptions has been proven to foster SC resilience among fast-moving good manufacturers and food and beverage companies in South Africa whose SCs were severely affected during the COVID-19 pandemic [11]. SC management practices such as supplier diversification and knowledge enhancement for suppliers to promote scheduling agility have been associated with improved sustainability of SCs in the South African food and beverage industry. In Ghana, SC disruption management practices are still not a priority for most manufacturing companies which continue to experience losses from unexpected events [8]. Stakeholders engage in collaboration and information sharing to identify disruptions before they occur, alongside inventory optimization, and maximization of human capital to manage SC disruptions in manufacturing companies.
The Kenyan manufacturing sector experiences various disruptions such as high production costs, limited access to credit, droughts, competition from imports, regulatory frameworks, and political uncertainties among others [5]. Therefore, SC disruptions are prevalent Additional challenges include overreliance in the manufacturing sector with predictors such as natural disasters, human errors, and global supply factors [4]. Some of the notable SC disruption management practices implemented by Kenyan companies include supplier diversification, demand management, and fostering production innovation, among others. The intricate and vulnerable nature of the food and beverage SCs requires accuracy in prediction and efficiency in the management of SC disruptions to avoid losses in the businesses. Food and beverage SCs in Kenya are vulnerable to fluctuations in quality, cost, time, and inventory management on their internal scale in addition the external factors.

1.2 Objectives and Hypothesis

The objective of the study was to determine the influence of SC disruption management practices on the performance of food and beverage companies in Nairobi City County, Kenya. Specifically, the study sought to meet the following four objectives

i. To establish the influence of strategic sourcing on the performance of large food and beverages processing companies in Nairobi City County.
ii. To determine the influence of inventory control on the performance of large food and beverage processing companies in Nairobi City County.
iii. To assess the influence of supply innovativeness on the performance of large food and beverages processing companies in Nairobi City County.
iv. To evaluate the influence of supply diversification on the performance of large food and beverage processing companies in Nairobi City County

The study tested the following hypotheses:

H_{O1}: There is no significant relationship between strategic sourcing and the performance of large food and beverage processing companies in Nairobi City County

H_{O2}: There is no significant relationship between inventory controlling and the performance of large food and beverage processing companies in Nairobi City County

H_{O3}: There is no significant relationship between supply innovativeness and the performance of large food and beverage processing companies in Nairobi City County

H_{O4}: There is no significant relationship between supply diversification and the performance of large food and beverage processing companies in Nairobi City County.

2. LITERATURE REVIEW

2.1 Theoretical Review

The study was supported by four theories: lean theory, contingency theory, theory of constraints, strategic choice theory, and SC network theory. The lean theory hypothesis suggests that it is possible to eliminate excess inventory and minimize waste in the production process [12]. Therefore, implementing lean practices can have positive impacts on a business firm's supply chain such as effective optimization of inventory levels, leading to high asset utilization levels and reducing waste in the production process [2].

The contingency theory asserts that there are no universal management principles that can be applied in all situations [13]. As a result, contingency factors such as organizational size, technology, environmental vulnerability, and individual differences among others, impact and shape different scenarios in the manufacturing process. The theory emphasizes the importance of achieving alignment between the organization's strategy, culture, goals, technology, staff, external environment, and its structure, processes, and practices to develop strategies for managing SC disruptions [13].

The theory of constraints hypothesizes that SC performance is dependent on the efficient management of capacity and limitations in the production process [14]. The theory supports improving manufacturing throughput efficiency by identifying and addressing challenges and processes limiting manufacturing the system. Therefore, companies ought to invest in advanced and innovative systems to achieve efficient stock flow control and promote synchronization in production. The effectiveness of a stock control system is determined by how much it improves the performance of business firms [14].

The strategic choice theory (SCT) hypothesizes that the objective of the associations is to accomplish elite principles and increase productivity to the furthest reaches of monetary requirements [15]. Manufacturing decision-makers in the different sectors should coordinate significant choices and change measures in associations with consistent correspondence and joint efforts at the various levels across, inside, and between company associations. Firm managers should prioritize product flexibility as a strategy to handle critical situations, in addition to considering other key factors such as sourcing, inventory, and information technology to enhance supply chain resilience. Additionally, managers should be aware of market opportunities, the political environment, and the organization's actions to make informed decisions and prevent disruptions. By addressing both intra and inter-organizational issues, managers can achieve supply chain resilience [15]

2.2 Conceptual Framework

The conceptual framework proposes that the supply chain disruption management practices implemented by managers in a firm have a direct impact on the supply chain resilience of the organization, which can be measured using three indicators: market share, sales performance, and profitability. The study's conceptual framework is presented in Figure 2.2.1.

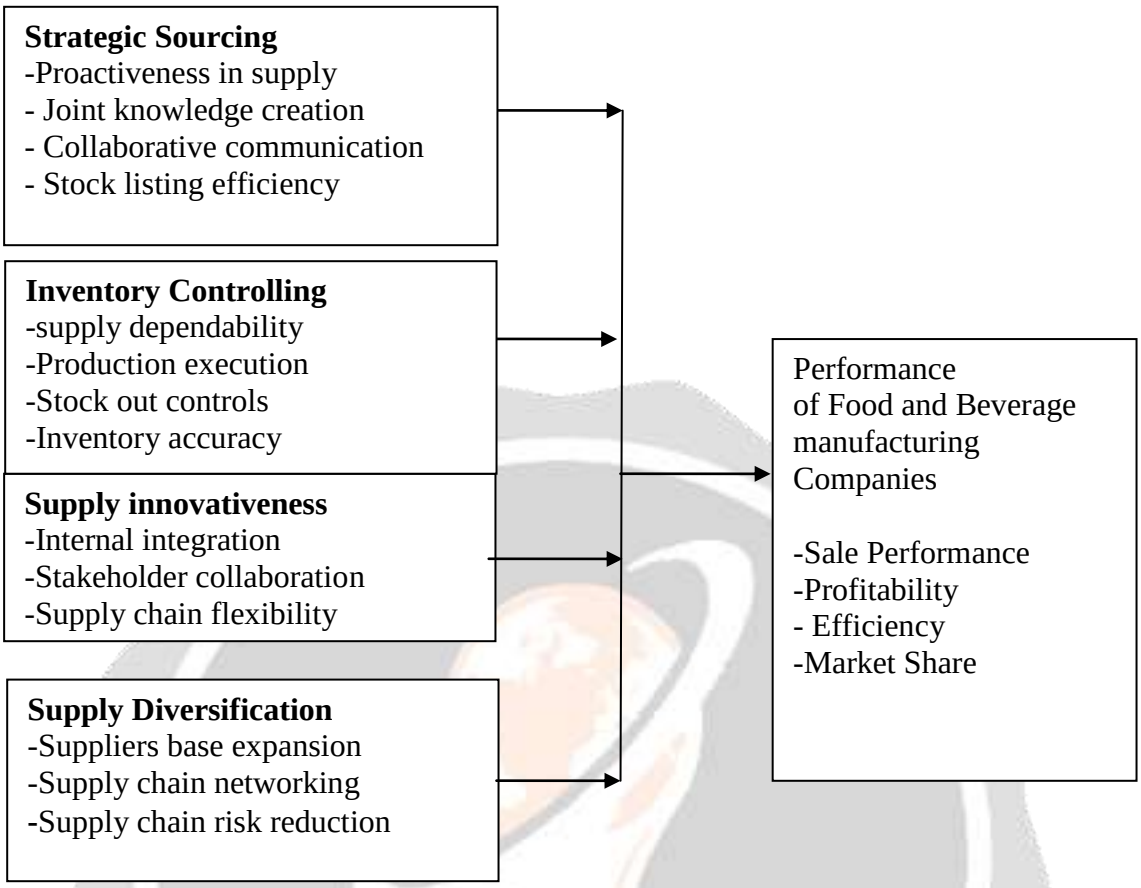

Figure 2.2.1: Conceptual Framework

Strategic Sourcing was used in reference to the degree to which food and beverage companies in Nairobi City County have formal processes in place for supplier selection, evaluation, and relationship management. Deployment of strategic sourcing in the management of SC disruptions has been linked to potential profit earnings. Strategic sourcing is conceptualized through the management of supplier relationships, fostering supplier selection, and enhancing supplier collaboration and supplier flexibility base, which enhances the resilience of the supply chain in manufacturing firms [16]. Strategic outsourcing can help firms reduce costs by managing quantity discounts, but can also create challenges in managing inherent demand fluctuations and major disruptions. Flexible supplier bases are created to manage supply chain disruptions linked to strategic sourcing and foster effective production and management of demand fluctuations. By sharing information and knowledge, supply chain collaboration can lower costs, enhance visibility, and improve operational efficiency, customer service, and overall firm performance [17].

Inventory Controlling is used in reference to the degree to which food and beverage companies in Nairobi City County have inventory management systems in place to track inventory levels, demand forecasts, and order lead times. In production and inventory models, uncertainties and disruptions can arise from various factors, including fluctuations in demand, disruptions in capacity, and delays in planning and scheduling [14]. To manage the risk of disruptions, companies often use inventory as a buffer against additional uncertainty, but this incurs holding costs that managers may find undesirable [17]. Increased inventory capacity, responsiveness, flexibility, capabilities, redundant suppliers, and pooled demand can create resilience and influence firm returns [14]. Therefore, inventory control is crucial to supply chain disruption control as ineffective inventory management poses a threat to a firm's viability and performance [17].

Supply Innovativeness is used in reference to the degree to which food and beverage companies in Nairobi City County adopt innovative practices and technologies to improve their supply chain processes, such as real-time tracking and monitoring of inventory, demand forecasting, and logistics optimization. Innovative practices within supply chain management are essential in effectively managing supply chain disruptions and achieving firm

performance [18]. To effectively respond to disruptions resulting from market complications and vagueness, firms should have disruption management tools in place. By focusing on innovation, SC disruption management can assist manufacturing management in effectively managing disruptive occurrences, thereby improving their performance. This management approach can also help firms identify vulnerable nodes in the SC that require attention to maintain a high level of innovativeness [8]. Companies can gain a competitive advantage by effectively managing SC disruptions through cost reduction, enhancing market responsiveness, and improving supply chain innovativeness [19].

Supply diversification is used to reference how food and beverage companies in Nairobi City County source raw materials and components from multiple suppliers, rather than relying on a single source. The accessibility to an increased number of suppliers enables manufacturing companies to put in SC more production lines and faster response to shift volumes and production in the event companies experience disruption in the markets [20]. Diversification of suppliers enables companies to divide disruption portfolio across multiple players decreasing the impact any supply chain disruption can have on the supply streams. Increasing suppliers is linked to a decrease in firm returns levels, however, it lowers disruption variance and enables the firm to achieve a competitive edge over competitors and improve the firm market share [21]. Supplier reliability is critical in the management of disruptions that influence the competitive edge of the final product, lower disruption impact, and performance of firms.

Performance is measured as the degree to which the food and beverage manufacturing companies studied achieve their objectives, mission, vision, and goals. Organizational performance is classified into financial and non-financial metrics. Financial performance measures include profitability, return on investment, return on assets, product market performance, and shareholder returns, among others. Non-financial indicators include quality of products, delivery time, customer satisfaction, employee satisfaction, innovation, environmental impact, and social responsibility [22]. These indicators are critical in assessing the overall performance of a manufacturing company as they reflect the company's ability to meet the needs of its stakeholders and achieve its goals in a sustainable manner. Therefore, a holistic approach that considers both financial and non-financial indicators is necessary for assessing the performance of manufacturing companies [17]. This study evaluated the performance of manufacturing companies by focusing on financial measures like profitability and returns and non-financial measures like customer satisfaction and operational efficiency.

3. METHODOLOGY

3.1 Research Design

The study utilized a quantitative approach with a correlational research design. A quantitative approach was preferred because of the study's nature of evaluating the relationships between SC disruption practices and organizational performances when testing the hypotheses. The quantitative research method used in the study ensured minimized researcher bias and promoted the study's objectivity and rigor through structured and organized data collection and analysis [23]. Additionally, using a quantitative design enables the generalization of study results based on where the research sample was drawn, which is important for the current study [23].

A correlational research design facilitates the evaluation of the relationship between two or more variables without experimental manipulation of any of the variables, which meets the needs of the study [24]. The current study utilized a cross-sectional approach of correlational design because the data was collected at a single point in time and analysis was conducted to determine the relationship between performance and the implemented SC disruption management practices. A limitation of correlational studies is that they do not establish causation, indicating that there is no guarantee that the implemented SC disruption practice caused the observed performance of the firm under study [24]. However, it is not within the scope of this study to establish the causes of observed performance in the studied companies, rather we seek to establish how the SC disruption management practices influence performance.

3.2 Population and Data Collection

The research aimed to survey all 46 major food and beverage companies located in Nairobi County, Kenya, making use of a census approach since it was a survey. The survey targeted procurement managers, financial managers, operation managers, and supply chain managers from these companies as the respondents. The selected managers received survey questionnaires through hand delivery and courier services, depending on the distance of the Nairobi central business district (CBD). The questionnaires were hand-delivered for the companies within a 5-kilometer radius of the Nairobi CBD and sent via courier services for those beyond the radius.

The questionnaire was chosen as the method of data collection for its ease of administration, cost-effectiveness, ability to collect the required information, and efficiency in collecting a large volume of data. Additionally, the data

was collected during the COVID-19 pandemic, hence questionnaires eliminated the need for face-to-face interaction between the participants and the researcher. An introduction letter accompanies the questionnaires where the researcher introduced the study purpose, and included a phone number for contact once the questionnaires were filled.

3.3 Validity and Reliability

A pilot group of 10 food and beverage manufacturing companies, not included in the final list of companies was selected where the questionnaire and data collection method were piloted. During the questionnaire development process, the validity of the instrument was determined by confirming the content of the survey through expert analysis. Construct validity was assessed by aligning the questions with the conceptualization of the factors and ensuring that the indicators of each factor are within the same construct. An internal consistency (Cronbach's alpha value > 0.70) for the 10 pilot questionnaires was attained using SPSS indicating the reliability of the data collection instrument. The results of the reliability test are shown in Table 3.3.1.

Table 3.3.1: Reliability Results Summary

Variables	Cronbach's Alpha	No. of Items
Strategic Sourcing	0.784	6
Stock Controlling	0.722	6
supply chain innovativeness	0.738	6
Supplier diversification	0.718	6
Performance of Food and Beverages Companies	0.811	6

3.4 Data Analysis and Presentation

The data collected was thoroughly examined to ensure its completeness and comprehensibility. Descriptive statistics such as mean and standard deviation were used to analyze the data with the help of SPSS version 25. Correlation analysis was conducted to determine if there is a significant association between supply chain disruption management practices and the performance of food and beverage companies in Nairobi County. Regression analysis was used to establish if there is a significant relationship between variables. The research's correlation and relationship were tested at a significant level of 0.05 or a 95% level of confidence. The responses to the supply chain disruption management practices were measured by computing indices based on the responses derived from the Likert-scaled questions.

The study adopted a multiple regression equation model as presented.

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_{4+\mu}$

Y= Performance in Food and Beverage Manufacturing Companies

α = Constant

β= Coefficient factor

$X_{1=}$ Strategic Sourcing

$X_{2=}$ Inventory Controlling

X_3= Supply innovativeness

X_4= Supply Diversification

$_{\mu=}$ Error Term

4. FINDINGS

A total of 184 questionnaires were sent to middle and top-level officers, holding positions such as procurement managers, financial managers, and inventory managers, in food and beverage manufacturing companies in Nairobi City County. Out of the 184, 149 were filled and collected for analysis indicating a response rate of 81%. This response rate was deemed sufficient to draw conclusions related to the research objectives.

4.1. Demographic Findings

The participants were asked to respond to three demographic questions investigating their educational background, their work experience in their current company, and some background on the company. The demographic characteristics of the participants are presented in Table 4.1.1. More than half (52%, n = 78) held a master's degree and all had attained at least a university degree. All the companies sampled had been in operation for more than 10 years, a large majority for more than 15 years, and almost half (43%) for more than 20 years. Regarding the

participants' work experience, almost all had worked for more than 10 years and the large majority (84.6%) had worked for more than 15 years.

Table 4.1.1: Demographic Characteristics

Characteristics	Characteristics	Frequency	Percent
The highest level of education attained	University degree	36	24.2%
	Master's degree	35	23.5%
	Doctorate	78	52.3%
	Total	149	100.0%
Period of company operation (years)	11-15 years	24	16.1%
	16 – 20 years	61	40.9%
	Above 20 years	64	43.0%
	Total	149	100.0%
Period worked in the company (years)	Less than 10 years	2	1.3%
	11-15 years	21	14.1%
	16-20 years	66	44.3%
	Above 20 years	60	40.3%
	Total	149	100.0%

4.2 Descriptive Findings

The mean and standard deviation for each of the statements representing the five variables is presented in Table 4.2.1 The responses to the statements ranged from strongly disagree (1) to strongly agree (5) for the respondents to indicate their level of agreement with the given statements. Based on the Likert scale, and the average (M = 4.34, SD = 0.67 the participants agreed that their companies had implemented strategic sourcing as an SC disruption management strategy. Similarly, the findings in Table 4.2 indicate that inventory control is widely practiced as an SC disruption management practice based on the participant's responses (M = 4.35, SD = 0.71). A similar case was observed for supply chain innovation (M = 4.37, SD = 0.66) and supplier diversification (M = 4.22, SD = 0.71). Regarding performance, the participants were asked whether they agreed with statements about improvements in notable performance metrics such as profit margins, customer base, and cost of production, among others. The average of the responses (M = 4.18, SD = 0.88) indicates observed performance improvements.

Table 4.2.1: State of SC Disruption Practices and Performance of Surveyed Companies

Strategic Sourcing	**Mean**	**Std dev**
We select suppliers based on proactiveness	3.9195	0.673
We select suppliers based on the quality of the products they offer	4.1275	0.68071
We have adopted multiple sourcing to create reliable delivery	4.4966	0.56502
We select suppliers based on innovation deploys	4.502	0.51602
We maintain a small supplier base to be able to manage	4.4544	0.86778
We have joint knowledge creation with our partners	4.5477	0.70112
Average	4.3413	0.6673
Inventory Controlling		
There is an effect monitoring of stock flow	4.5034	0.6433
The company has internal stock movement increases the opportunities for errors	4.4094	0.678
The company fosters accounting higher transaction frequencies	4.2685	0.6641
There is adequate information sharing increasing inventory managed efficiently	4.4295	0.7467
We foster investment in acquiring information to foster accurate reporting	4.1275	0.7648
There is a decrease in holding costs in retail stores	4.3289	0.7662
Average	**4.3445**	**0.7105**

Supply Chain Innovativeness		
There is co-ordination with the supplier and frequently to maximize cost efficiency	4.4161	0.55872
We try to incorporate our suppliers' and customers' forecasts into our forecast	4.3691	0.66117
We often adjust our production system to meet the requirements of our customers	4.1544	0.65476
We work with major suppliers and customers to help them improve their forecast accuracy	4.5705	0.66021
We have joint planning committees on key issues with major supplier disruption mitigation	4.1208	0.56846
Major customer involvement was an integral part of the design effort for new products	4.5886	0.84065
Average	**4.3699**	**0.6573**
Supplier diversification		
Increase inventory control	4.2819	0.54625
We increase the supply base by expanding supply chains	4.5101	0.66391
We increase the supply chain network	4.1141	0.75811
There is an increase in flexibility to cope with changes	4.2081	0.84049
There is efficient sourcing	4.1141	0.83448
Efficient distribution of goods due to time-phased requirements schedules	4.1074	0.60561
Average	**4.2226**	**0.7081**
Performance measures		
The companies reported an increase in profit margin	4.3423	0.62354
The company reports that number of customers increased in all regions of the country	4.5034	0.68403
Reduction in cost of production	4.5933	1.05585
Reduction in stock returns in the companies	3.8523	0.88818
Increase the level of the company asset base	4.0336	0.96853
Improve accessibility to the market	3.7718	1.11574
Average	**4.1828**	**0.889312**

4.3 Inferential Findings

The correlation between supplier disruption management and the performance of food and beverage manufacturing companies was determined using the Pearson Product Moment correlation coefficient and the findings are indicated in Table 4.3.1. The findings demonstrate a robust, statistically significant, and positive association between the performance of food and beverage manufacturing companies in Nairobi City County and their SC disruption practices specifically, strategic sourcing ($r = 0.761$, $p < 0.05$); inventory control ($r = 0.507$, $p < 0.01$); and supplier diversification ($r = 0.503$, $p < 0.01$). A strong negative association was observed between performance and supply chain innovativeness ($r = -0.749$, $p < 0.05$).

Table 4.3.1: Correlation between SC Disruption Management and Performance

		Performance	Strategic Sourcing	Inventory Controlling	Supply innovativeness	Supply Diversification
Strategic Sourcing	R	.761**	1			

Inventory Controlling	R	.507**	.769	1		
Supply innovativeness	R	-.749*	.621	0.728	1	
Supply Diversification	R	.503**	.891	0.454	0.228	1

**-Correlation is significant at the 0.01 (2-tailed)

*- Correlation is significant at the 0.05 (2-tailed)

In addition to the correlation analysis, a multiple regression analysis was conducted to establish the extent the SC disruption management practices affect performance. The model was established as significant (F (4, 144) = 20.13, $p < 0.001$) with sufficient goodness of fit and R-square (0.359) as indicated in Table 4.3.2

Table 4.3.2: Regression Model Summary

Model		Sum of Squares	DF	Mean Square	F	Sig.	R	R-Square
1	Regression	1873.850	4	468.462	20.127	.000[b]	.599[a]	.359
	Residual	3351.573	144	23.275				
	Total	5225.423	148					

a. Independent Variables: (Constant), Strategic Sourcing, Inventory Controlling, Supply innovativeness, Supply Diversification

b. Dependent Variable: Performance on Food and Beverage Manufacturing companies in Nairobi City County.

Table 4.3.3: Regression Coefficients

Model	Unstandardized Coefficients (B)		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	11.357	8.474		1.340	.018
Strategic Sourcing	-.212	.188	-.098	-1.128	.261
Inventory Controlling	.699	.164	.449	4.260	.000
Supply innovativeness	-.412	.148	-.218	-2.790	.006
Supply Diversification	.624	.145	.369	4.320	.000

c. Independent Variables: (Constant), Strategic Sourcing, Inventory Controlling, Supply innovativeness, Supply Diversification

d. Dependent Variable: Performance of the company

Regarding the regression coefficient, strategic sourcing does not have a significant effect on the regression model ($p > 0.05$) and, therefore is not included in the regression model. The Multiple regression analysis model for the study $Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + ę$ (1) takes the form:

Performance = $11.357+0.699X_2-0.412X_3+0.624X_4+ę$.

Where $X_{2,}$ $X_{3,\text{ and}}$ X_4 are inventory controlling, supply chain innovativeness, and supplier diversification.

4.4 Discussion of Findings

The study found a strong and significant between the SC disruption management practices and the performance of food and beverage companies in Nairobi City County. The findings of the multiple regression analyses indicated the extent to which these practices affected performance. The correlation analysis results indicated a positive, strong, and positive correlation between strategic sourcing and performance. However, the regression analysis revealed that strategic sourcing had an insignificant and negative relationship with performance in these companies. This means that an increase in strategic sourcing could lead to a decrease in performance, although the impact would not be statistically significant.

The findings also indicated a strong, significant, and negative correlation between supply innovativeness in managing supply chain disruptions and the performance of food and beverage manufacturing companies in Nairobi

City County. The regression analysis supported the correlation analysis findings indicating that an increase in supply innovativeness is associated with a decrease in performance in the food and beverage manufacturing companies in Nairobi City County. Practices such as coordination with suppliers and frequent communication to maximize cost efficiency, involving suppliers and customers in forecasting to aid decision-making, adjusting production systems to meet customers' needs, joining planning committees to mitigate key supplier disruptions, involving customers in product design, and utilizing computer-aided inspection (CAI) during supply chain disruptions are all associated with a decline in performance for food and beverage companies in Nairobi City County, Kenya. The negative influence of SC innovativeness on performance cannot be clearly explained but assumptions can be made based on the timeline the study was conducted – during the COVID-19 pandemic, and the level of innovation penetration in Kenya.

The study findings indicate strong, significant, and positive correlations between performance inventory control, and supplier diversification, which are further supported by the regression analysis. Inventory controlling practices such as monitoring of stock flow, and internal stock, provision of adequate information sharing, and fostering supplier partnerships thereby increasing manufacturing operations, among others have positive influences on the performance of food and beverage companies in Nairobi. Additionally, supplier diversification through increased supply base, increased supply chain network, increase in supplier flexibility to cope with changes, having efficient sourcing, having efficient distribution, among other supplier diversification practices also positively influence the performance of food and beverage companies in Kenya

5. CONCLUSIONS

The research findings indicated an overall positive influence of SC disruption management practices on the performance of sampled food and beverage companies in Nairobi City County. Except for SC innovativeness, the other three SC disruption management practices were found to have positive significant influences on performance. Conclusions can be drawn that the SC disruption management practices implemented by food and beverage companies in Kenya have a positive influence on their performance. Recommendations are made for further studies to establish the specific impact of these SC disruption management practices on the performance of the companies. Additionally, further studies on SC innovativeness and strategic sourcing are recommended to determine how they can be improved to have a positive impact on the companies' performance. The effect of the COVID-19 pandemic and its implications on the food and beverage sector and how that affects the study findings remains unknown. Further, there is limited literature on SC disruptions in the Kenyan economy, which limits our knowledge of how the period the study was conducted influenced the results.

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