



**EFFECT OF STRATEGIC SOURCING PRACTICES ON SUPPLY CHAIN PERFORMANCE OF RETAIL SUPERMARKETS IN NAIROBI CITY COUNTY, KENYA.**

**<sup>1</sup> King'ori Simon Thiong'o, <sup>2</sup>Dr. Lambaino Nelson (PhD)**

<sup>1</sup>Masters student, Jomo Kenyatta University of Agriculture and Technology, Kenya

<sup>2</sup>Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

**ABSTRACT**

Retail supermarkets continually evaluate new methods on how to improve their performance. They achieve these improvements by increasing their revenue and decreasing cost. The study analyzes how retail supermarket can significantly enhance their performance by implementing strategic sourcing practices. The study majorly focused on effect of strategic sourcing practices on supply chain performance of retail supermarket in Nairobi City County. The study was guided by the following objectives: supplier collaboration relationship, E-procurement, procurement plan, strategic inventory management. The study employed descriptive statistics method in as a research design method. The study employed a census approach in data collection and targeted population of 60 made up of personnel from procurement /commercial department and branch management department from major retail supermarkets in Nairobi City County, where the whole population was included in the study. Data was collected by use of questionnaire and secondary data was obtained from retail supermarkets' websites, published materials and journals. Reliability of the study instrument was enhanced by carrying out a pilot study. Data analysis was done through descriptive statistics while employing frequency and percentage in presentation. The study concludes that supplier collaboration relationship has a positive and significant effect on supply chain performance of retail supermarkets in Nairobi City County, Kenya. In addition, the study concludes that e-procurement has a positive and significant effect on supply chain performance of retail supermarkets in Nairobi City County, Kenya. Further, the study concludes that procurement plan has a positive and significant effect on supply chain performance of retail supermarkets in Nairobi City County, Kenya. The study also concludes that strategic inventory management has a positive and significant effect on supply chain performance of retail supermarkets in Nairobi City County, Kenya. Based on the findings, this study recommends that the management of retail supermarkets in Nairobi City County should continue embracing strategic sourcing practices to enhance supply chain performance.

**Key Words:** supplier collaboration relationship, E-procurement, strategic sourcing practices, supply chain performance

## INTRODUCTION

Sourcing is one area where if any firm take efficient and effective measures can enhance a dramatic change and great performance in an organization when done strategically. According to Jijnyasa (2019) strategic sourcing is a process that directs all sourcing activities toward opportunities that enable a firm to achieve its long-term operational and organizational performance goals. It is a very critical role in the retail business since key activities involve buying products from the suppliers and selling them to the customers who are the focus.

Strategic sourcing involves integration and coordination of a firm's different functions to the firm's strategic decision-making level, which focus on achieving the laid strategic goals of the firm (Jin, 2012). Strategic sourcing also enhance monitoring constant changing business conditions especially in the market, the supply trends that are developing in the marketplace, interprets the meaning of these trends and offers valuable solution to a firm's strategic decision-making process besides it involves the selection of key vendor, management of the relationship, motivation and evaluation of his /her performance besides enhancement of their development in a way a firm will be at a better position globally.

Research conducted in a variety of industries in the USA has demonstrated that a firm's ability to obtain or sustain competitiveness should be enhanced by developing a sophisticated sourcing function that is integrated into the firm's strategic decision-making process (Dobrzykowski *et al.* 2010). One of the studies conducted by McCarthy & Jayarathne (2012) in the USA, indicated that firms which do their sourcing strategically had great growth and are great contributor the economy of their country. Despite the dramatic transition that had resulted in many structural changes, those firms remained significant, with the industry employing many workers.

Research conducted by Asrat (2017) on role of strategic sourcing to operational performance of Ethiopia airways showed that strategic sourcing is key function to any firm which determines success in a business but is faced by critical challenges involved in the latest innovation of SCM. Business firms are operating in an environment characterized by countless challenging factors such as political, economic, social, technological, environmental and legal which causes disruptions to their sources of supplies of goods and services. To survive in this turbulent marketplace, retail supermarkets must continually monitor their competitive position as well as their internally controllable processes- especially the procurement process.

In a study conducted by C. Mutua (2018) on influence of strategic sourcing on the performance of procurement functions of Kenyan commercial banks, it was concluded that if properly structured strategic sourcing can effectively combine the core competencies of a given firm with the skills and capabilities of its suppliers in a way it will bring success to the firm. In the same study it was established that proper sourcing strategies greatly improves the performance of the firm hence need of any firm to improve their sourcing strategies and benchmark them with best in practices organization and ensure they enter into buyer supplier relationship that are fostered on trust and goodwill on both parties so as to maintain and improve organization performance.

In 2018 update for Kenya's retailing report, UK estate agency Knight Frank noted several retail structures in development in the country those in Nairobi including: the second phase of Westgate Mall, with a span over 14,000 square metres likely to be occupied by Naivas; Waterfront Mall, 19,509 square metres which was opened by Naivas year 2020; Diamond Plaza II, 8361 square metres; and the Well, 7432 square metres. Following this flurry of developments, the supply of retail space has boomed, rising by 41.6% in 2017 in the country, and attributed in part to the opening of Two Rivers Mall (Carrefour), Garden City Mall (Shoprite), TRM Mall (Carrefour), Rosslyn Riviera Mall and NextGen Mall and many more outside Nairobi. The result of this has

led to a decline in occupancy rates.

### **Statement of the Problem**

The retail sector plays a huge role in Kenya's Economy, growth in the sector been much strong and is one major area of focus for the country Vision 2030 as stated in the chapter three of strategic plan on economic vision and strategy pillar. According to the Kenya National Bureau of Statistics (2018), retail sector contributes to 5.7% of GDP in 2017 which amounted to 2.3% increase from the previous year. Despite the retail business been one sector which is dramatically growing, it has however undergone some of challenges and difficult which has been contributed by inefficiency sourcing practices, leading to great lose to the business and downfall (Moses, 2017). As cited by Kenya Economic Survey (2018), Nakumatt supermarket went into receivership in early 2018 due to inefficiency sourcing practices leading to falling behind on its payments to suppliers, while Uchumi faced similar difficulties in the same year 2018.

A report titled "Study on Kenya Retail Sector Prompt Payment" by the Ministry of Industry, Trade and Cooperatives (2017) ,found out that on December 31, 2016, one quarter of what was owed to retail suppliers was outstanding by more than 90 days and that Nakumatt and Uchumi were responsible for about two-thirds of those debts going against what is in Public Procurement and Asset Disposal Act (2015) on days to payment of any supplier. A report by Morris (2020) stated that Tuskys , is on a government watchlist after it failed to pay its suppliers on time due to constrain cash flow. While the chain management blames the reduction of customer footfall due to the Covid-19 pandemic outbreak, investigation by competition watchdog has found out that, Tuskys troubles stated back 2018, main issue been inefficiency in their sourcing practices such as lack of good cost estimates i.e., poor margins on their pricing leading to losses and poor supplier relationship. Like most of the retail chain in the county, this chain owns almost nothing but its brand, making its potential failure a big risk both for the retail supply chain and for Kenyan economy.

Despite the significant advancement of research in strategic sourcing, to date, there are limited research conducted on strategic sourcing in Kenya. In a study conducted by Mutua & Juma (2018) on the effect of strategic sourcing on banking sector , it was found that proper structured strategic sourcing can effectively combine the core competencies of a given firm with the skills and capabilities of its suppliers leading to a great improved performance of the firm. In a study conducted by Asrat (2017) on the role of strategic sourcing on operational performance in Ethiopian Airline, it was found out that strategic sourcing plays a key role in organization performance where its success was contributed by various factors such as supply chain improvement, contract management, supplier relationship management and rationalization of supply base. In a study conducted by Kihanya *et al.* (2015) on the role of strategic sourcing on organization's performance, it was asserted that, strategic sourcing enables the organization to concentrate on its core functions which enables the firm on achieving its strategic advantage and at the same time act as a means in which business conditions or problem are alleviated in a manner that is more efficient and effective is achieved.

Despite those studies have been conducted on strategic sourcing, not much has been done to relate strategic sourcing to performance in retail business besides, there is a gap in real issues affecting supply chain performance of retail business in modern trade. Due to this gap in information, this study therefore sought to ascertain the effect of strategic sourcing practices on supply chain performance of retail supermarket in Nairobi City County, Kenya.

## Objectives of the Study

- i) To determine the effect of supplier collaboration relationship on supply chain performance of retail supermarkets in Nairobi City County, Kenya.
- ii) To establish effect of E-procurement on supply chain performance of retail supermarkets in Nairobi City County, Kenya.

## LITERATURE REVIEW

### Theoretical Review

#### Resource Based View Theory

The resource base view theory is one of the strategic management theories noted and which are very highly applicable to today's modern business environment to organizations (David & Kharuddin, 2005). The theory explains how firm, and supplier's involvement enhance good supplier collaborations hence a firm gaining uniqueness in its capability hence affecting its performance (Carr & Pearson, 2002). According to Dobrzykowski *et al.* (2010) a firm's successful sourcing decisions is dependent on resource-based view which provides an internal view of the firm considering its core competencies.

Kim (2009) used this theory to establish the causal linkage among SCM practices, the level of supply chain integrations, competition capability and firm's performance. Furthermore, Lao *et al.* (2010) developed the concept of supply flexibility by recognizing the role of resources in supply flexibility. According to Oh & Rhee (2008) resource-based view theory also helps to explain why firms lacking certain competitive capabilities will seek and promote collaborative relationships with supply chain partners to secure those capabilities in a firm.

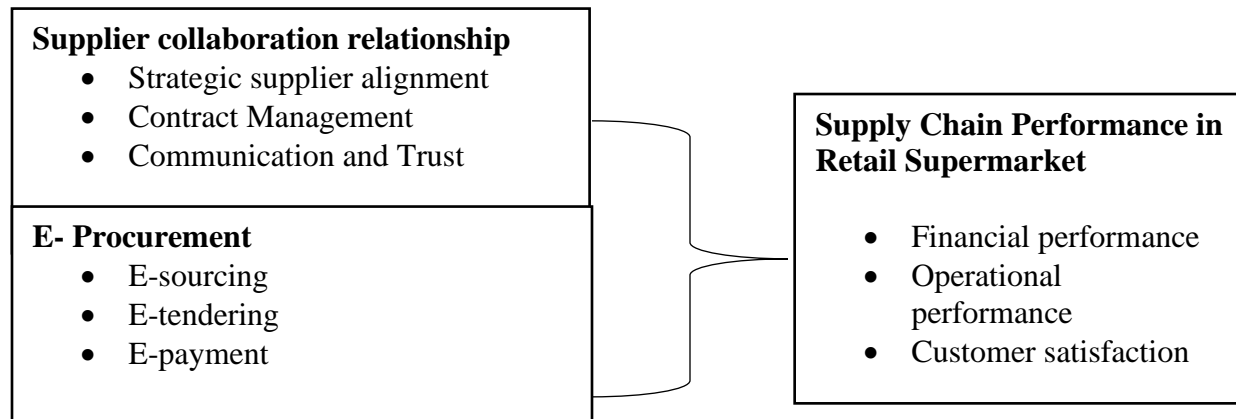
#### Real Option Theory

Real options theory is a modern theory on how to make decisions regarding investments when the future is uncertain where it draws parallels between the valuation of the financial options available and the real economy. The theory has become a popular theme in most business schools across the world, as well as the boardroom, especially within retail business in their strategic sourcing for growth and development (Smit & Trigeorgis, 2004). In the world of retail business, a 'real option' is a choice available to a company regarding an investment opportunity. The term 'real' means that it refers to a tangible asset and not a financial instrument hence assets sourced should be of return gain to firm. According to (Peteraf, 1993), Real Option Theory offer new insights into the drivers of firm heterogeneity and competitive advantage, organizational form and associated build-borrow-buy decisions, cooperation versus competition trade-offs arising in many market and technology contexts, and the role of headquarters in multinational firms.

A real option been a right without an obligation to invest resources (e.g., labor, money, time) toward a course of action at a future point in time (McCarter *et al.* 2011). An example from HBR article site that it may be cheaper to manufacture at home, (de Treville & Trigeorgis, 2010) and argue that supply chain managers typically rely on the discounted cash flow (DCF) model to help them value the alternatives in their sourcing practices". However, this model undervalues flexibility and, thus, supply chain managers may end up with supply chains that are lean and low cost under normal circumstances but extremely expensive if the unexpected occurs. Applying this model enables supply chain managers to put key concern on flexibility in the supply chain and on

the ability to manage production problems directly rather than from afar.”

### Conceptual Framework



### Supplier Collaboration relationship

According to Gunasekaran *et al.* (2015) the relationship developed for a long tie between supply chain members with an aim of lowering cost and risks as well as improving quality and market value. Supplier's collaboration are the activities of partnership between the firm and its suppliers to maximize supply chain related performance (Abdul &Yongmei, 2016). To enhance environmental sustainability partner, firms influence each other's resources and activities to exploit learning and knowledge sharing opportunities.

Supplier collaboration relationship focuses on joint value creation based on trust, open communication, and collaboration with a limited number of key suppliers (Mueni, 2017). On the other hand, leveraging on supplier capabilities is mentioned as the most important objective of the relationship since the firm are aware that they do not have the means to finance all activities on their own (Kinai &Were, 2017). Another attribute to collaboration supplier relationship is strategic supplier alignment which according to Winston Weber Associates (2020) is a value proposition that creates a compelling reason for suppliers to invest in a retail supermarket. Also, is a consistent approach of interaction with suppliers across all merchants based on the retail supermarkets' overall objective and plan. For retailers' firm to achieve desired outcomes and actual result, they should come up with a strategic alignment model which is a comprehensive approach of how a firm defines and manages their relationship to drive profit growth in a firm.

To enhance collaboration supplier relationship, we also have contract management as another attribute. Contract management is a process of managing contract creation, execution, and analysis to maximize operational and financial performance of an organization (Bennett, 2019).In retail business we have joint business plan (JBP) which suppliers sign with the firm on agreement on their partnership. According to Walton (2020) a joint business plan (JBP) is a collaboration process plan between the retailer and supplier in which both parties agree on both short- and long-term objectives , financial goals, growth, and shared business initiatives for profitability.

### E- Procurement

E-procurement in this study was considered as a variable that affect supply chain performance of retail supermarket. The attribute of e-procurement which were taken into consideration in this study are e-sourcing, e-tendering, and e-payment. E-procurement is the use of information communication technology (ICT) in the acquiring of goods and services by an individual or a firm

(Munubi & Ondiba, 2017). E-procurement through its application of rapid data processing, electronic technology provides means to improved efficiency within specified areas of supply chain management hence providing some of solutions to some challenges been encountered. E-procurement process has three broad phase which are e-sourcing, e-tendering, and e-payment.

E-sourcing is a process of identifying potential bidder, getting to know what they sell, their price and their agreement terms. Individual and sourcing firms can identify potential qualified suppliers hence expedite procurement process on timely bases (Conceptric,2015). As defined by CIPS (2021) E-sourcing is the sourcing process enabled with appropriate web-enabled, collaborative technology to facilitate the full-life cycle of the procurement process for both buyers and suppliers. Suppliers in electronic procurement are categorized into auctions depending on their long-term and short-term relationships or both (Belisari, 2020). In auction, short term relationship, all suppliers and their price catalogue are electronically provided hence making it easy for the buying firm to make comparison before making their decision on which supplier to pick. On long term relationship, there involves a strategic alliance where both buyer and supplier enter a joint planning through sharing their information on procurement process electronically. Some of benefit of E-sourcing to a firm are, there is a level playing field to all suppliers which lead to fairness, improve trust between suppliers and leads to supplier relationship management.

E-tendering is one phase of e-procurement which is defined as creation and issues of request for tender and subsequent completion of all tender process by use of internet (Hudson 2018). Adoption of information and communication technology in tendering process brings in many benefits such as cost and time reduction, increased efficiency, effectiveness, leads to transparency, accountability and enhances customer satisfaction (Njoroge & Irungu, 2018). E-payment on the other hand is means of paying goods and services through electronic means or can mean online payment system (Sandra, 2017). It is a kind of payment system which leads to accountability and brings in more efficiency in firms' operations.

## **Empirical Review**

### **Supplier Collaboration Relationship on Supply Chain Performance**

In a study conducted by Grace, Julias & Hesbon, (2021) on the influence of supplier relationship management on supply chain performance, it was found out that supplier relationship management significantly influenced supply chain performance in a firm. The study recommended that when making supplier relationship management decision aimed at optimizing supply chain performance, the supply chain managers should place more emphasis on segmenting the suppliers based on a distinct set of criteria to understand their expertise, strength, and flexibility.

In a research study conducted by Stanley (2016) on the effect of supplier relationship on supply chain performance, it was found out that supplier relationship management plays a pivotal role in reduction cost and increases supply chain functions efficiency. From the study it was revealed that value creation has led to increase of market share and competency and there is a great relationship between customer, long range relationship and contract to encourages supplier on improving quality of all products and reducing lead time inventory cost. Another study conducted by Odari & Hottensiah, (2017) on effect of supplier collaboration on organization competitiveness of manufacturing firms in Kenya, it was found out that supplier collaboration increases organization competitiveness to a great extent where it lends to on time delivery, reduced delay, increase customer satisfaction, ensures quality products which leads to improving organization performance.

Research study by Mueni (2017) on role of supplier collaboration on organization performance concluded that collaboration relationship builds vendor management program which enables the firm to maximize value at each stage of the supplier's relationship. Buyer supplier collaboration enhances procurement performance in a firm hence creating a competitive advantage through sharing information making a joint decision, inter-organizational relationship. Peter & Esther (2015) did a further study on the role of buyer supplier relationship on supply chain performance in Kenya's state corporation, it was found out that, the strategic and technological innovation in supply chain will impact on how the firm buys and sell and the organization must realize that they must harness the power of technology, effective relation with their supplier to collaborate with the business. Through enhancing effective supply chain management in a firm, this can lead to improvement on firm relationship with all vendors so that there are opportunities to cut cost i.e., through volume purchase which led to lower pricing on buyer's side which makes supply chain management effective.

### **E- Procurement on supply Chain Performance**

In research done by Sylvester (2019) on the effect of e-procurement on supply chain performance found out that, e-procurement has a great impact to the performance of any organization. In the study variables such as e-tendering, e-ordering process, e-material management and e-supplier management were used where it was deduced that e-tendering has a conspicuous influence on supply chain achievement. E-tendering activities drastically reduced time needed in tendering process making the process more efficiency besides postal procedures is eliminated and no printing and storage charges incurred. On E-ordering system, the study found out that it helps in lessening time for processing orders and makes the process more effective and efficient. Lastly the study found that's e-supplier management assist greatly where buyer and supplier institutes a sole shared anticipation of demand and an arrangement of supply, buyers issues order of material from supplier is streamlined, quick information sharing with suppliers, electronic payment of suppliers improve delivery and improve relation with channel partners.

Another study conducted by Ilyas (2021) on the impact of e-procurement adoption on company performance discovered that top management and information quality has a significant effect on e-procurement implementation while e-procurement implementation has a significant effect on company performance. Some managerial policies such as involvement of management in strengthening the adoption of electronic technology adoption in procurement and increasing staff ability to adopt this technology could be implemented.

According to a research on positive and negative impacts on adoption of E-procurement solution by Sara, Andrea & Corrado (2020), it was found out that, E-procurement impacts the overall firm value chain, being directly related to firm performance, efficiency and effectiveness. It also has a great impact on business processes transformation through facilitation and automation of the overall procurement process of goods and services by simplifying and shortening procurement activities hence reducing red-tape and administrative burdens while increasing transparency by making the firm more sustainable. E-procurement is one of the dynamic procurement processes because of its strategic, innovation and responsive procurement process which influences the outcome of the performance and drives improvement of the whole supply chain.

A study done by Avedi (2016) on the effect on influence of e-procurement on organization performance, found out that, there is a significant positive relationship between the component of e-procurement namely data transmission system, buyer/supplier collaboration, billing management and system management with the organization performance. Prior to e-procurement,

procurement often dealt with administrative routine duties as well such individual transaction converting purchase request into purchase orders or ensuring the correct amount of inventory is maintained and therefore the use of e-procurement technology in e-procurement is aimed at realizing faster and more efficient operation procurement process hence reducing procurement cost and thereby enhancing organization performance. E- procurement has been advocated as a tool which enhance improvement of firm competence and performance through data transmission , buyer/supplier collaboration , system management and billing management.

## **RESEARCH METHODOLOGY**

The study employed a descriptive research design in investigating the effect of strategic sourcing practices on supply chain performance of retail supermarket in Nairobi City County, Kenya. Descriptive research design was used in this study to gather, summarize, present, and interpret information for the purpose of clarification. Descriptive research provides an in-depth description of a phenomenon or a population under the study as they are hence deeming the best strategy to fulfill the objective of the study(Hitesh, 2019)

A reliable coefficient of 0.8 and above was used to determine internal reliability and internal consistency of the instrument used and see how well a test measures the achievement which is proportion of variance in observed result attributed to the actual result (Jennifer, 2022). Cronbach's alpha was used as the internal consistency coefficient for the study.

Data was then organized and interpreted and analyzed on account of concurrence to objective using a computer package; statistical package for the social science (SPSS) version 22 to communicate research findings. Correlation analysis was used in the study. It deals with exploring the correlation between two or more variables in the study establishing strong relation between the independent variable and depended on variable (Dr. Amit, 2016).The study used Pearson's correlation model to test direction of correlation between the depended variable and independent variable. Multiple regression analysis described below was used to make inference between collective effect of all the variables (Dheeraj , 2021).

## **RESEARCH FINDINGS AND DISCUSSIONS**

The researcher sampled 60 respondents who were each administered with the questionnaires. From the 60 questionnaires 56 were completely filled and returned hence a response rate of 93.3%. The response rate was considered as suitable for making inferences from the data collected. As indicated by Metsamuurone (2017), a response rate that is above fifty percent is considered adequate for data analysis and reporting while a response rate that is above 70% is classified as excellent. Hence, the response rate of this study was within the acceptable limits for drawing conclusions and making recommendations.

### **Descriptive Analysis of the Variables of the Study**

#### **Supplier Collaboration Relationship and Supply Chain Performance**

From the results, the respondents agreed that effective communication and trust between buyer and supplier enhance a joint value creation which brings growth in the firm. This is supported by a mean of 3.928 (std. dv = 0.840). In addition, as shown by a mean of 3.831 (std. dv = 0.804), the respondents agreed that strategic supplier alignment helps retail supermarket achieve their desired outcome and actual results which drives profit growth in a firm. Further, the respondents agreed that effective communication and trust between buyer and supplier create competitive advantage through sharing of information in making joint decisions which benefit both firms. This is shown by a mean of 3.696 (std. dv = 0.937).



The respondents also agreed that contract Management through signing in of Joint Business Plan enables the retail supermarket to gain competitive advantage in the market. This is shown by a mean of 3.689 (std. dv = 0.876). From the results, the respondents agreed that buyer supplier collaborative relationship enhances procurement performance in a firm. This is supported by a mean of 3.675 (std. dv = 0.897).

In addition, as shown by a mean of 3.643 (std. dv = 0.743), the respondents agreed that good supplier relationship enables retail supermarket meets customers' needs in an efficient and effective manner. Further, the respondents agreed that collaborative supplier relationship leads to improved quality, delivery performance and responsiveness which leads to reduction of cost. This is shown by a mean of 3.598 (std. dv = 0.921).

**Table 1: Supplier Collaboration Relationship and supply Chain Performance**

	<b>Mean</b>	<b>Std. Deviation</b>
Effective communication and trust between buyer and supplier enhance a joint value creation which brings growth in the firm.	3.928	0.840
Strategic supplier alignment helps retail supermarket achieve their desired outcome and actual results which drives profit growth in a firm.	3.831	0.804
Effective communication and trust between buyer and supplier create competitive advantage through sharing of information in making joint decisions which benefit both firms.	3.696	0.937
Contract Management through signing in of Joint Business Plan enables the retail supermarket to gain competitive advantage in the market.	3.689	0.876
Buyer supplier collaborative relationship enhances procurement performance in a firm.	3.675	0.897
Good supplier relationship enables retail supermarket meets customers' needs in an efficient and effective manner.	3.643	0.743
Collaborative supplier relationship leads to improved quality, delivery performance and responsiveness which leads to reduction of cost.	3.598	0.921
<b>Aggregate</b>	<b>3.691</b>	<b>0.854</b>

### **E-Procurement and Supply Chain Performance of Retail Supermarkets**

The respondents agreed that e-procurement enables a firm to gain competitive advantage through consolidating the supply chain functions under a single roof which results to efficiency and growth. This is supported by a mean of 3.984 (std. dv = 0.811). In addition, as shown by a mean of 3.920 (std. dv = 0.923), the respondents agreed that E-sourcing enables a firm to identify potential qualified suppliers in an efficient and effective manner, hence expedite procurement process on timely bases. Further, the respondents agreed that e-sourcing enhances a level playing field to all suppliers which leads to fairness, improved trust between supplier and leads to supplier relationship management. This is shown by a mean of 3.901 (std. dv = 0.648).

The respondents also agreed that adoption of E-tendering process in a firm enhances cost and time reduction and increased efficiency and effectiveness in procurement function. This is shown by a mean of 3.854 (std. dv = 0.928). From the results, the respondents agreed that e-tendering process leads to increased transparency and accountability in procurement process hence customer satisfaction. This is supported by a mean of 3.726 (std. dv = 0.711). The respondents further agreed

that e-payment system leads to accountability and brings in more efficiency in retail firm operation. This is supported by a mean of 3.675 (std. dv = 0.876).

**Table 2: E-Procurement and Supply Chain Performance of Retail Supermarkets**

	Mean	Std. Deviation
E-procurement enables a firm to gain competitive advantage through consolidating the supply chain functions under a single roof which results to efficiency and growth.	3.984	0.811
E-sourcing enables a firm to identify potential qualified suppliers in an efficient and effective manner, hence expedite procurement process on timely bases.	3.920	0.923
E-sourcing enhances a level playing field to all suppliers which leads to fairness ,improved trust between supplier and leads to supplier relationship management.	3.901	0.648
Adoption of E-tendering process in a firm enhances cost and time reduction and increased efficiency and effectiveness in procurement function.	3.854	0.928
E-tendering process leads to increased transparency and accountability in procurement process hence customer satisfaction.	3.726	0.711
E-payment system leads to accountability and brings in more efficiency in retail firm operation.	3.675	0.876
<b>Aggregate</b>	<b>3.865</b>	<b>0.839</b>

### Correlation Analysis

From the results, there was a very strong relationship between supplier collaboration relationship and supply chain performance of retail supermarkets in Nairobi City County, Kenya ( $r = 0.820$ ,  $p$  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 findings of Patowarya (2019) who indicated that there is a very strong relationship between supplier collaboration relationship and supply chain performance

Moreover, the results revealed that there is a very strong relationship between e-procurement and supply chain performance of retail supermarkets in Nairobi City County, Kenya ( $r = 0.837$ ,  $p$  value =0.001). The relationship was significant since the  $p$  value 0.001 was less than 0.05 (significant level). The findings conform to the findings of Biwott (2017) that there is a very strong relationship between e-procurement and supply chain performance.

**Table 3: Correlation Analysis**

		Supply Chain Performance	Supplier Collaboration Relationship	E-Procurement
<b>Supply Chain Performance</b>	Pearson Correlation	1		
	Sig. (2-tailed)			
<b>Supplier Collaboration Relationship</b>	N	56		
	Pearson Correlation	.820**	1	
<b>E-Procurement</b>	Sig. (2-tailed)	.002		
	N	56	56	
<b>Supply Chain Performance</b>	Pearson Correlation	.837**	.289	1
	Sig. (2-tailed)	.001	.061	
	N	56	56	56

**Regression Analysis****Table 4 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.929	.856	.857	.10654

**Table 5 Analysis of Variance**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	122.027	4	30.508	182.688	.001 <sup>b</sup>
	Residual	8.511	51	.167		
	Total	130.538	55			

**Table 6 Regression of Beta Coefficient and Significance**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error			
1	(Constant)	0.158	0.077		2.519	0.001
	supplier collaboration relationship	0.389	0.110	0.388	3.536	0.003
	E-procurement	0.491	0.105	0.492	4.676	0.001

a Dependent Variable: supply chain performance

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r-squared for the relationship between the independent variables and the dependent variable was 0.856. This implied that 85.6% of the variation in the dependent variable (supply chain performance of retail supermarkets in Nairobi City County, Kenya) could be explained by independent variables (supplier collaboration relationship and E-procurement)

The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 182.68 while the F critical was 2.553. The p value was 0.001. Since the F-calculated was greater than the F-critical and the p value 0.001 was less than 0.05, the model was considered as a good fit for the data. Therefore, the model can be used to predict the influence of supplier collaboration relationship, E-procurement, procurement plan and strategic inventory management on supply chain performance of retail supermarkets in Nairobi City County, Kenya.

From the results, supplier collaboration relationship has a significant effect on supply chain performance of retail supermarkets in Nairobi City County, Kenya  $\beta_1=0.389$ , 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 Usman *et al.*,2016) who indicated that there is a very strong relationship between supplier collaboration relationship and supply chain performance

The results also revealed that e-procurement has a positive and significant effect on supply chain performance of retail supermarkets in Nairobi City County, Kenya,  $\beta_1=0.491$ , 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 results support Biwott, (2017) observation that there is a very substantial correlation between e-procurement and supply chain performance.

## Conclusion

The study concludes that supplier collaboration relationship has a positive and significant effect on supply chain performance of retail supermarkets in Nairobi City County, Kenya. Findings revealed that communication and trust, strategic supplier alignment and contract Management influences supply chain performance of retail supermarkets in Nairobi City County, Kenya

In addition, the study concludes that e-procurement has a positive and significant effect on supply chain performance of retail supermarkets in Nairobi City County, Kenya. Findings revealed that e-sourcing, e-tendering, and e-payment influences supply chain performance of retail supermarkets in Nairobi City County, Kenya.

## Recommendations of the Study

The study found that supplier collaboration relationship has a positive and significant effect on supply chain performance of retail supermarkets in Nairobi City County, Kenya. This study therefore recommends that the management of retail supermarkets in Nairobi City County should continue embracing supplier collaboration relationship to enhance supply chain performance

In addition, the study found that e-procurement has a positive and significant effect on supply chain performance of retail supermarkets in Nairobi City County, Kenya. This study therefore recommends that the management of retail supermarkets in Nairobi City County should continue embracing e-sourcing, e-tendering, and e-payment to enhance supply chain performance.

## REFERENCES

- Agu, O. A., Obi-Anike, H. O., & Eke, C. N. (2016). Effect of Inventory Management on the Organization Performance of the Selected Manufacturing Firms. *Singaropean Journal of Business Economics and Management Studies* , 5 (4).
- Agustin, G., Ashish, K. (2020). Taking Supplier Collaboration to the Next Level. Article
- Anh, C., Ha, T., Hao, A., & Yoshiki, M. (2019). Effect of Total Quality Management and JIT Production Practices on Flexibility Performance: *Empirical Evidence from International Manufacturing Plants* ,9-14.
- Asad, S., P. Fraser, & Amrou, A. (2019). Emerging Economy Sourcing : Implication of Supplier Social Practices for Firm Performance .*International Journal of Production Economics*, 218, 148-158 .
- Asrat Admasu, (2017). The Role of Strategic Sourcing in Operational Performance of the Organization :A Case of Ethiopian Airlines.
- Benjamin, A., Isik, B., de Treville, S., & Trigeorgis ,L. (2012). Real Option at the Interface of Finance and Operation: Exploiting Embedded Supply-Chain Real Option to Gain Competitiveness .*The European Journal of Finance* ,19(7-8) 160-778.
- Catherine, W., Gregory, N., & Alice, S. (2020). Strategic sourcing as a tool for improving Firm's performance .*International Journal of Innovation and Economic Development*, 6 (5) , 71-77.
- Chepng'etich, C., Waiganjo, E., & Karani, A. (2016). Influence of Strategic Sourcing on Organizational Performance of State Corporation in Kenya: *A Case of Kenya Power*. *International Journal of Management and Commerce Innovations*, 3(2), 127-137.
- Chopra, P., & Meindl, S. (2010). Supply chain management. Upper: Prentice Hall.
- Christiane, B. (2020) The Role of Strategic Sourcing on Global Supply Chain Competitiveness: *Managing Operation Throughout Global Supply Chains* ,8 ,159.

- Dr Kimetto, R., David, J., & Peter N. (2019). Effect of Strategic Sourcing on Organization Performance : A Case of Acacia Premier Hotel. *Scientific Research Journal, Volume VII, Issue VIII, ISSN 2201-2796*.
- Eleni, P., & Hans, W. (2017). Inter-and Intra-Organizational Conditions for Supply Chain Integration with BIM: *Building research and Information* ,45 (6), 649-664.
- George, A., Zsidisin, & Lisa, M.(2006). An Agency Theory Investigation of Supply Risk Management *Journal of Supply Chain Management* ,39(2), 15-27.
- Grekova, K., Calantone, R., Bremners, H., & Trienekens, J.(2015). How Environmental Collaboration with Supplier and Customers Influences Firm Performance: Evidence from Dutch food and Beverage Processors. *Journal of Cleaner Production* 112.
- Gunasekaran, A., Subramanian, N., & Rahman, S.(2015). Supply Chain Resilience :Role of Complexities and Strategies. *International Journal of Production Research* , 53(23).
- Ingavo, J. A., & Moronge, M. (2019). Influence of E-procurement on Performance of State Corporation in Kenya. *The Strategic Journal of Business & Change Management* , 6 (2), 348-362.
- Irungu, J., & Gakenia, N.(2018). Effect of E-Tendering on Organization Performance in Public Sector :A Case of Nairobi City County Government , 5, (3).
- Jin Su, (2013). Strategic Sourcing , Sourcing Capability and Firms Performance in the USA Textile and Apparel Industry. *Strategic Outsourcing an International Journal* , 5 (2).
- Joakim, M. (2017). Effect of Strategic Sourcing on Organization Performance: A Case of Administration Police Training College Quatermaster Store Embakasi.
- Jofre, S. (2021). Strategic Management :The Theory and Practices of Strategy in Business Organization.
- Juan, C. Barahona, & Andrey, M. Elizondo ,(2012). The Disruptive Innovation Theory Applied to National Implementation of E-Procurement. [www.ejeg.com](http://www.ejeg.com)
- Kassu., J. Sileyew (2019). Research Design and Methodology.
- Kenya Gazette Supplement No. 207 (Acts No. 33) (2015). The Public Procurement and Asset Disposal Act No. 33 of (2015), published on 24th December 2015: [website http://ppra.go.ke/ppda/](http://ppra.go.ke/ppda/).
- Kenya Vision 2030 : [vision2030.go.ke](http://vision2030.go.ke)
- Kiarie, J W. (2017). The influence of Supplier Relationship Management Practices on Operational Performance of Large Manufacturing Organization in Kenya .
- Kihanya, T., Wafula, M., & Onditi, E. M. (2015). The Role of Strategic Sourcing on Organization's Performance: A Case Study of Jomo Kenyatta University of Agriculture and Technology. *International Journal of Scientific and Research Publications* , 5(5), 1-11.
- Kiplel, Chepkesis, M., Keitany, P., & Kiplel, M. (2018). Effect of Procurement Planning on Suppliers Performance in Public Institution :A Case of Moi University. *European Journal of Logistics , Purchasing and Supply Management* , 6 (2), 1-9.
- Larry, C., Robert, H., & Diana, D. (2020). Purchasing and Supply Management Sustainability: Drivers and Barriers .*Purchasing and Supply Chain Management Journal* , 18(4):258-269.
- Meindl, P & Chopra, S (2015). Supply Chain Management: *Strategy, Planning, and Operation* (6 ed.)
- Ministry of Industry Trade and Cooperatives, State Department for Trade (2017). Study of Kenya Retail Sector Prompt Payment.
- Minkyun, K., Nallan, S., & Canan, K. (2015). A Contextual Analysis of the Impact of Strategic Sourcing and E-Procurement on Performance : *Journal of Business & Industrial Marketing* , 30(1), 1-16.
- Mrunal (2014) .Walmart Approach to Strategic Sourcing :[www.scdigest.com](http://www.scdigest.com)

- Mugubi, M.( 2017). Factor Affecting Efficient Procurement in Retail Organization in Kenya: A Case of Nakumatt Supermarket .
- Munubi, K., Kinanga, R., & Ondiba, K. (2017). Effect of Electronic Procurements on Organization Performance:A Case of Major Supermarket in Nairobi County .*International Academic Journal of Procurement and Supply Chain Management* , 2 (3), 92-105.
- Musau, E. G., Namusonge, G., Makokha, E. N., & Ngeno, J. (2017). The Effect of Inventory Management on Organization Performance Among Textile Manufacturing Firms in Kenya. *International Journal of Academic Research in Business and Social Science* , 7 (11).
- Mutua, C.N., & Juma , D. (2018).Influence of Strategic Sourcing on Procurement Performance of Kenyan Commercial Banks .*The Strategic Journal of Business Management* ,5 (2), 70.
- Omalaja, M.A., Eruola, O.A.(2011). Strategic Management Theory :*Concept , Analysis and Critiques in Relation to Corporate Competitive Advantage from the Resource -Based Philosophy, Vol.44 No.1-2,59-77.*
- Sara, B., Daniele B., &Andrea A. (2020).E-procurement Adoption :A Case Study about the Role of Two Italian Advisory Services.
- Shale, N. I. (2015). Role of E-Procurement Strategy on the Performance of State Corporation in Kenya (Doctoral Dissertation).