

**INFLUENCE OF SUPPLY CHAIN MANAGEMENT PRACTICES ON THE
PERFORMANCE OF MANUFACTURING FIRMS IN NAIROBI CITY COUNTY,
KENYA**

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ABSTRACT

The business dynamism environment is characterized by intense competition, diminishing resources and internationalization among other factors. As a result, many fast moving manufacturing firms are forced to produce goods at lower costs. Most manufacturing companies are adopting supply chain management control techniques which minimize operational costs hence maximizing profits. A supply chain management practice improves efficiency on the supply chain and hence it plays an important role among manufacturing firms. In fast moving manufacturing firms, too much stock could lead to tied capital, increase in holding cost, theft and deterioration of materials. In addition, materials shortage in manufacturing firms can lead to production process interruption, underutilization of machines and poor customers' relations. This study therefore seeks to identify the influence of supply chain management practices on the performance of goods manufacturers in Nairobi. Specifically the study deliberated to analyze the influence of purchasing and distribution on the performance of goods manufacturers in Nairobi. The study used descriptive survey design and the target population was 51 fast moving manufacturers in Nairobi County, Kenya. Primary data was collected by use of a structured questionnaires through drop and pick method. The research instrument generated quantitative data, which was analyzed by the use of descriptive and inferential statistics. Purchasing had a positive influence on the performance of FMCG manufacturers in Nairobi County ($\beta_1=0.521$, p-value=0.000). Secondly, distribution had a positive influence with ($\beta_2=0.345$, p-value=0.001). The study recommends that all FMCG should align purchasing agendas with the overall objectives of the company to gain competitiveness. The manufacturers should focus on floor, distribution, and logistics management in a bid to enhance their performance.

Keywords: *Supply Chain Management Practices, Purchasing, Distribution, Performance*

INTRODUCTION

Supply chain management is defined as the supervision of supply chain activities while focusing on maximizing customer value and achieving a maintainable level of competitive edge (Prachad & Tata, 2010). The business dynamism environment is characterized by intense competition, diminishing resources and internationalization among other factors; many manufacturing firms are forced to produce products at lower costs. Majority of the manufacturing companies are adopting supply management control techniques which minimize operational costs hence maximizing profits (Sharma & Arya, 2016). Supply management practices improve efficiency on the supply chain, and thus it plays an essential role among manufacturing firms.

In manufacturing firms, too much stock could lead to tied capital, increase in holding cost, deterioration of materials, obsolescence and, theft. Materials shortage in manufacturing firms can lead to production process interruption, underutilization of machines and poor customers' relations. Among fast moving manufacturing firms, supply chain management is in the production process, and therefore its management helps a firm to grow and increase its profitability and customer base (Amarnath, 2013). To ensure there is no stock out, which may dissatisfy customer needs, proper supply chain management control must be provided.

The fast moving consumer goods manufacturing firms in Nairobi are considered to be active and fast in the production of a range of items (Apte, 2010). These organizations are mostly concerned with fast moving products like home care products, refreshments, personal care, and foods. Most of these products are supposed to be consumed within a short duration of time, and some of them have a short shelf life. Therefore, efficient supply chain management is of necessity and of paramount importance in these organizations.

The fast moving consumer goods sectors have lost immensely due to small supply chain management initiatives (Beamon & Kotleba, 2016). The supply chain management requires an enterprise-wide analysis of what activities to engage in at each level of the firm and its appropriate activities. According to Beamon (2014), poor management of supply within the organization affects the business operations from enhancing the differing capabilities and strengths of its manufacturing capabilities. As a result, most companies have concentrated on short terms goals where pricing has been their area of interest while foregoing the long-term objective in managing the internal and external suppliers.

Measurements of supply chain performance are used to find out the effectiveness and efficiency of current systems being used or benchmark competing options (Beamon, 2014). They offer essential response data regarding development, improved communication and, identification of complications (Cooper & Schindler, 2016). These measurements create a better understanding of the supply chain thus advancing general performance (Shepherd & Gunter, 2006). Performance measures of supply chain performance for each firm are done contrarily, and it is subjected to a specific firm. The Supply Chain Operations Reference (SCOR model), benchmarking and the Balanced scorecard are the three approaches that are used for supply chain performance measurements (Bhattacharjee, 2012). The SCOR model lets managers address, advance and lead into supply chain management operations within and amongst all shareholders (Cooper & Schindler, 2016).

In China, Huawei Technologies utilizes purchasing of good and services as an element of supply chain practice to enhance the performance of the organization considering its success hinges on

the appropriate acquisition. According to Brierley (2012), proper purchasing improves the quality of output of any organization something that directly influences the performance levels, for example, through an increase in profitability. To improve the performance levels, the organization select its suppliers through an evaluation process to ensure they can deliver high quality. Purchasing element ensures that there is a reasonable prospect that entities participating in the tendering process demonstrate the ability to deliver the final contract satisfactorily. Purchasing research enables an organization to document instances of poor performance on suppliers, therefore, uses this information to determine the eligibility for participation in future tender bids (Cooper & Schindler, 2016). Through purchasing, Huawei Technologies gains access to a portfolio of the best class of suppliers thus improving the practices of supply chain management.

In Uganda, Uganda Clays enhances the purchasing as a core element of supply chain management to the enterprise through taking advantage of the provisions of supplier selection in acquisition of high quality products. The current regional scenario of supply chain management relies on the availability and implementation of better purchasing. Therefore, to enhance the performance levels, it is a requirement that every organization adopts a selection matrix that improves supply performance by over 20% (Kirande, 2014). Having a purchasing model in place ensures that Uganda Clays contracts between suppliers with the ability to meet the purchasing contractual expectations. This situation paves the way for the company to gain enhanced visibility into the supplier performance hence resulting in cost reduction and enhances profitability levels. According to Mungai (2014), purchasing is an essential element in supply quality management as its objective is to guarantee organization access to high-quality products that result in improved customer satisfaction.

In Tanzania, Azam Bakhresa Group improves the manufacturing performance through the adoption and implementation of supply chain distribution. Good organizational systems policies provide a platform for an organization to plan the supply chain systems to interact with each other (Kemunto, 2014). This process makes it easy for the Azam Bakhresa Group to bolster the technical aspect of supply chain management systems. Inventory management distribution policies make it easy for the organization to focus on improving the processes of supply chain management. This situation enhances the performance of a company as it provides an organization with the latitude to establish standards that increase profitability and cost reduction. To remain operational, it is a requirement that a company disposes of the manufactured goods and products (Shapiro, 2015). Disposal policies improve the efficiency levels as they provide efficient and ethical means of product disposal hence maximizing the benefit value of the organization.

Currently, there have been increased levels of inefficiency as a result of poor alignment of the supply chain practices with the performance targets of manufacturing companies in Kenya (Aura, 2017). According to World Bank International (2016), the manufacturing sector in Kenya and particularly in Nairobi is one of the largest GDP contributors at 14.5%. From within manufacturing sector, food and other kinds of products contribute to over 55% of manufactured products as at 2016. As a result, it is evident that Kenya's manufacturing sector has not fully benefited from the practice of supply chain management necessitating a study to investigate how supply chain management practices can be utilized in enhancing the performance of manufacturing firms.

Fast Moving Consumer Goods range from different categories depending on their needs. A report by the Kenya Association of Manufacturers (2017) indicates that food products fall under the category of basic needs. An example of these goods includes things like maize and wheat flour, milk, bread, cooking oil, Rice, etc. The other category comprises pieces of products such as tissue paper, lotions, beauty products, and so on, this range of FMCGs belongs to the category of secondary needs. The other category includes leisure products which include beverages beer, cigarettes, wine and so on. These products are not necessities to human beings life, but their consumptions are as a result of habits from human behavior (Cooper & Schindler, 2016).

Statement of the Problem

Supply management practices are applied by fast moving manufacturing firms to enable them to achieve efficiency and effectiveness. According to Chae et al., (2014), the use of supply chain elements such as purchasing and distribution go hand in hand by facilitating companies to cut the cost of operation in material management and during production. Besides, a study by Lambert (2016) presents information that effective supply management should have proper incorporation of operations management to increases the level of customers' satisfaction by delivering products that meet the users' needs. Also, for an efficient supply management, integration is a key feature in order fulfillment by reducing the lead times during supply acquisition and material processing (Aura, 2017).

In Kenya, there has been an increased level of inefficiency as a result of poor alignment of the supply chain practices with the performance targets of fast moving manufacturing companies (Aura, 2017). According to World Bank International (2016), manufacturing sector in Kenya, and particularly in Nairobi, is one of the largest GDP contributors at 24.5% and from within manufacturing sector, food and other pieces of products contribute to over 55% of manufactured products as at the year 2016. Despite this economic contribution, a report by the Kenya Association of Manufacturers indicated that, the profitability of the sector had reduced by 20% between 2012 and 2016 fiscal period. Besides, a further study by the Waithaka (2017) indicates that fast moving manufacturing companies are losing an additional 18% due to lack of effective supply chain management practices.

Manufacturing firms face a challenge of attaining sustainable competitive advantage due to improper utilization of supply chain management practices. Studies by Aura (2017) and Waithaka (2017) have not delved deeper in supply management practices explicitly touching on the fast moving manufacturing firms within Nairobi creating a significant research gap which this study aimed to address. Therefore, this study seeks to fill this knowledge gap by establishing the influence of supply chain management practices on the performance of manufacturing firms in Nairobi County, Kenya.

Research Objectives

The overall aim of the study was to determine the influence of supply chain management practices on the performance of manufacturing firms in Nairobi County, Kenya.

Specific objectives were;

- i. To analyze the influence of purchasing on the performance of manufacturing firms in Nairobi County, Kenya
- ii. To establish the impact of distribution on the performance of manufacturing firms in Nairobi County, Kenya

Theoretical Review

Resource Dependency Theory

Resource Dependence Theory relates with purchasing element of supply chain management and was promoted by Nienhüser (2015) is the study of how external resources affect the performance of an organization. The productivity of the tactical and strategic management of a firm relies on the acquisition of external resources. The publication of the “External Control of Organizations: A Resource Dependence Perspective,” in the 1970s marked the formalization of this theory this is despite having vital importance (Nienhüser, 2015).

This theory bears implications in the procurement effectiveness of the buying firms especially in the tapping into the purchasing relationship. Casciaro and Piskorski (2014) assert that this theory highlights purchasing as an essential element in the practices of supply chain management. Further, the theory argues that actors lacking in vital resources will work toward establishing beneficial relationships that will aid in the acquisition of new resources.

To remain in business buyers rely on suppliers to acquire external resources as well as sellers who increase access to precious markets. Besides, through reducing the dependence levels organizations try to take control of their operations or try to be competitive by increasing the dependence of other organizations on them. Within this viewpoint, organizations are believed to be coalitions that alert their structure and patterns of behavior to aid in the acquisition and maintenance of the required external resources. By reducing an organizations dependence on other or by increasing the reliance of others on it, organizations successfully acquire external resources needed. Casciaro and Piskorski (2014) assert that this type of modification help organizations to consolidate power. The Resource Dependency Theory has two basic assumptions; competencies and resources are distributed heterogeneously among organizations; and competencies and resources are imperfectly mobile, which differentiates firms and maintains stability (Casciaro, & Piskorski, 2014).

System Theory

Systems theory involves the interdisciplinary study of systems with the aim of expounding on the ideologies that can be functional to different types of systems at different levels of research specifically, regarding distribution in a manufacturing organization (Haddad et al., 2012). This theory is not assumed to be a specialized system thinking; otherwise as an objective outcome of systems science. This theory emphasizes the generalization value across a broad range of systems thus it is applicable in this study to indicate the management of operational supplies and system management in distribution. Various fundamental ideas formed the basis of the systems view, and for example, all events can be explained by a web of relationships among a system, or elements. Secondly, all systems are defined by a universal property, behavior, and pattern that can be analyzed by an observer. According to Shaw (2011), this situation can be used in the development of insights into the behavior of complex events and move towards the unification of science.

Haddad et al. (2012) assert that a referential system comprises of activist groups that interact or interrelate during the distribution practices within and outside of an organization. Concerning the supply chain management field, the fundamentals of the System Theory combine the different elements of the complex supply chain. These elements include financial, material, knowledge, capital and human resources that create a subsystem which acts as part of a more significant system of the supply chain. According to Shaw (2011), the System Theory asserts that for an all-

inclusive outlook it must be applied to provide insight on the external and internal factors that can be determined by the supply chain performance of an organization concerning its distribution levels.

Heinze (2013) affirms that the System Theory explains how different parts of an organization are interrelated and how the change in a particular area possesses rippling effects. According to Haddad et al. (2012), an organization can be defined as systems that interact with their environment. To adapt to the changes in an environmental organization continuously affect the balance of equilibrium. This theory is built on the premise that all elements of an organization are interconnected and that a change in one variable affects other organizational elements (Maignan et al., 2012). As open systems, organizations are bound to be in constant interaction with each other. While adapting to the changes in the environmental organizations are normally in a state of equilibrium.

Conceptual Framework

Creswell (2014) defined a conceptual framework as a theoretical structure that holds or supports the rules, principles, and assumptions concerning specific ideas that are related to deep thought. The independent variables are purchasing and distribution and the dependent variable is the performance of manufacturing firms.

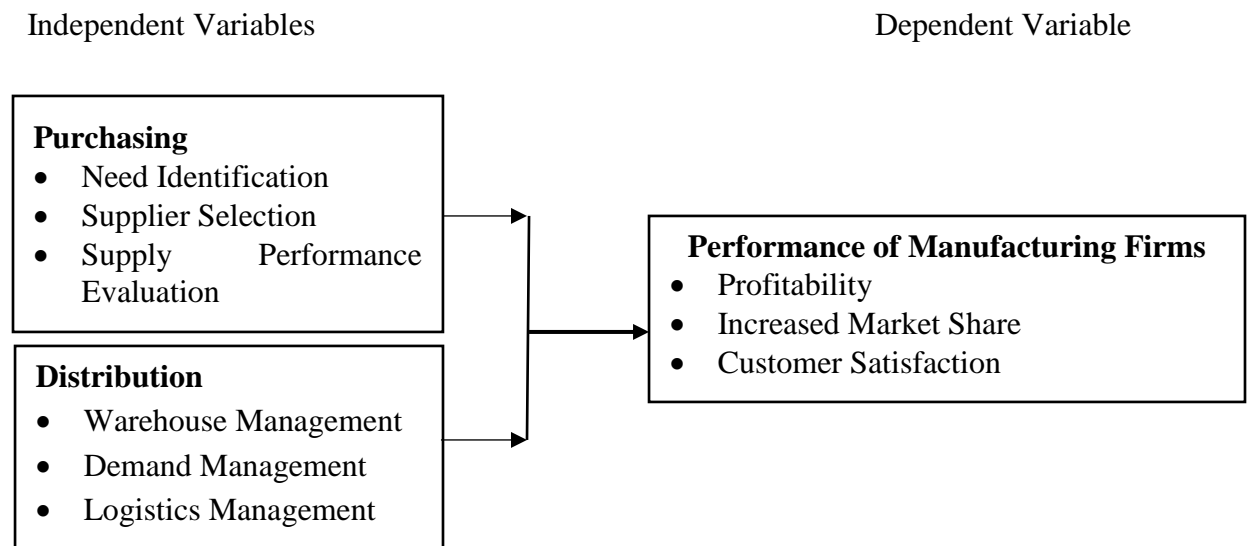


Figure 1: Conceptual framework

Empirical Review

According to Kepher, Shalle, and Oduma (2015) for a firm to improve its supply chain performance it is imperative that it initiates process such as inventory management, supplier evaluation, and product development. Bag (2012) affirms that these processes will make it easier for a firm to gain control and oversee its supply chain to ensure that it attains improved operational efficiency. As a result, the top management in an organization is responsible for providing that all the manufacturers and suppliers get to maintain the desired quality of products and services. Through the provisions of supplier evaluation, a firm makes sure that it runs its procurement operations based on ethical business practices.

The improvement of supply chain performance through the practices of purchasing is a significant issue facing most of the organizations (Rots, 2012). If an organization fails to conduct

procurement purchasing ethically, then the process of supply chain management is exposed to negative consequences that negatively influence performance levels. Wang et al. (2012) argue that product development, inventory management, and supplier evaluation are ultimately one of the many responsibilities of the procurement function in a fast moving manufacturing firm. The understanding of these elements ensures that a firm gains essential insight into the complex procurement world.

Dahiya, Guptas, and Jain (2012) posit that distribution practices such as floor, demand and supplier management optimize the supply chain performance in a firm. The procurement world is multi-faceted therefore vulnerable to significant trends such as globalization, customization, and outsourcing. This argument is supported by Casciaro and Piskorski (2014) who asserts that due to complexities in the supply chain it is imperative that firms use effective demand and supplier management to enhance the performance of a firm. To improve the performance of firms, companies have changed their management of procurement functions considering it is an essential part of the business.

Dahiya, Guptas, and Jain (2012) opine that supply chain performance is enhanced by the forecast, planning and the management of the demand for services and products. The constant changes in customer needs and increased globalization have increased the urgency of firms to implement effective logistics management measures. Price (2012) supports this argument by affirming that to improve supply chain performance; firms are constantly implementing proven changes concerning floor, demand and logistics management. As a result, these circumstances explain the differences in business operations among the majority of the firms that intent to manage and improve their supply chain performance through initiating inter-departmental flow management.

METHODOLOGY

The study used descriptive research design, where data was collected from the whole study population at a single point in time to examine the relationship between the variables of interest. The target population for this study entailed 51 fast moving manufacturing companies in Nairobi. The study used fast moving manufacturing firms as the unit of analysis and procurement managers as the unit of observation. However, for purpose of improving the reliability of the result, the study distributed two questionnaires for every company making the total target respondents to 102. The research used a census sampling technique with respect to the unit of analysis; which is the fast moving goods manufacturing companies in Nairobi, Kenya. The study reached out to 2 procurement managers in all the 51 fast moving manufacturers. The study utilized primary data. A structured questionnaire was used to collect data from the respondents. A pilot study was conducted involving 6 manufacturing companies to evaluate the validity and reliability of the questionnaire. The use of the open and close-ended questionnaire facilitated the collection of qualitative and quantitative data. Qualitative data was analyzed using content analysis. Quantitative data was analyzed using descriptive statistics such as, Inferential Analysis, Standard Deviation (STD), and ANOVA. Multiple regression analysis was used to determine the level of statistical significance, the effect or level of influence of the independent variables on the dependent variable. The analyses was done using Statistical Package for Social Science Version 20 (SPSS. V, 20)

RESEARCH FINDINGS

Purchasing Influence on the Performance of FMCG

Respondents were asked about the influence of purchasing activity towards the overall performance of their companies. The study recorded that about 17% strongly agreed that purchasing had a critical influence on performance. Additionally, about 41% of the respondents agreed that purchasing contributed significantly towards the efficiency and effectiveness of their companies. Nonetheless, 37% disagreed with statements that purchasing had a critical implication of the performance of manufacturing companies. Out of all the respondents in this study, only 2.92% were not sure about their position regarding the questions raised by the researcher.

Table 1: Purchasing Influence on the Performance of FMCG

Purchasing influence on the performance of FMCG	Users engaged during need identification process.	areSuppliers selected thecompetitively and on a fairis basis	areSuppliers' evaluation and development conducted regularly	Mean Frequency	Percentage Frequency
Strong Agree	15	7	20	14	17.50%
Agree	37	35	27	33	41.25%
Not sure	3	1	3	2	2.92%
Disagree	19	30	24	24	30.42%
Strongly Disagree	6	7	6	7	7.11%
Total	80	80	80	80	100%

Table 1 presents the study's finding on the central role of purchasing influence in enhancing better performance for fast moving manufacturing companies. As performance has a strong relationship with the approaches of purchasing through the supply chain management process. These findings were in line with a study conducted by Kulzy and Fricker (2015) which indicated that purchasing is the most rigorous primary activity in supply chain management. For example, whenever manufacturers bought low-quality commodities, the outcome affected organizational operations. Besides, if firms acquired materials at a high price due to ineffective purchasing skill, companies were most likely to suffer high cost of operation.

Additionally, Lambert (2016) conducted a study on "Supply Chain Management: Processes, Partnerships, Performance" and discovered that user involvement was the blueprint towards promoting a company's performance. As such, when customers are engaged in a purchasing process, high level of cooperation could be recorded. A study by Mungai (2014) also aligned with the outcome of this study by citing that the competitive selection of suppliers formed the basis for effective performance in a company. Mungai (2014) further believed that evaluating supplier during the purchasing phase of supply chain management was a critical parameter towards competitiveness.

Distribution Influence on Supply Chain Management

With the aim of establishing the relationship of distribution and level of performance in fast moving manufacturing companies, respondents were asked to provide their perception on

distribution, as a supply chain management activity, and its influence on performance. Majority of them, about 81%, agreed that for better performance, a manufacturer should maintain an effective distribution system. Out of 81%, 15 of them strongly agreed while 50 showed a high level of concession. Despite the high level of agreement, a total of about 17% indicated that distribution had nothing to do with firm performance in their companies.

Table 2: Distribution influence on Supply Chain Management

Distribution influence performance firms	Floor management of sufficient support proper distribution materials	Distribution is aligned with customers' demand. of	Logistic enhanced using modern logistics information systems	Mean is Frequency	Percentage Frequency
Strong Agree	12	27	6	15	18.75%
Agree	56	39	54	50	62.10%
Not sure	0	1	2	1	1.25%
Disagree	7	10	10	9	11.25%
Strongly Disagree	5	3	8	5	6.67
Total	80	80	80	80	100%

Table 2 shows that a vast majority in this study believed that distribution had a critical influence on the effectiveness of fast moving manufacturing companies. These findings concurred with Darian-Smith and McCarty (2017) who indicated that distribution was the backbone of supply chain management activities because it played a critical part in a company's competitive advantage. Therefore, the role of distribution is considered essential by fast-moving manufacturers. Furthermore, Haddad et al. (2012) argued that floor management was a productive part of the distribution that enabled the supply chain to instill the current flow of material in and out of the organization. This argument can be related to the findings of this study since most of the respondents cited floor management was an essential attribute whose proper application gained their companies better performance.

Kemunto (2014) further collaborated with the outcomes of this research by indicating that distribution which is aligned with customers demand most likely led to better performance. To add on this, the study revealed that firms that based their distribution management on demand were in a better chance to reduce the cost of production; consequently leading to competitiveness. Furthermore, according to Kirande (2014), distribution was an essential competitive tool that was better achieved through proper incorporation with information technology. The study found out that technological advancement enhanced the performance of manufacturing firms due to saving of cost during distribution and operation management.

Correlational Analysis

Pearson's correlation was used to measure the degree of association between variables under consideration, such as independent variables and the dependent variables.

Table 3: Correlational Analysis

Variable Title	Measurement	Performance of FMCG	Purchasing	Distribution
Performance of FMCG	Pearson correlation	1.00	.768	.759 *
	Sig. (2 tailed)	.000	.000	.002
Purchasing	Pearson correlation	.768	1.00	.467
	Sig. (2 tailed)	.000	.059	.058
Distribution	Pearson correlation	.759*	.425	1.00
	Sig. (2 tailed)	.002	.003	

The first variable, purchasing concerned the dependent variable, performance of manufacturing firms, had a coefficient of correlation of 0.768* which showed a strong positive relationship between the two variables. This implied that effective purchasing process had a critical role in the overall performance of a company. Similarly, the second independent variable, distribution showed a strong positive correlation with the dependent variable, performance of manufacturing companies. The strength of relation was discovered to be 0.759. This indicated that if a manufacturer had an effective distribution mechanism, its performance had a high chance of improving. According to McCarty (2017), a high level of correlation of independent variables and dependent variable shows that there exists a significant influence on the independent variable.

Regression Analysis

Table 4: Regression Analysis

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.581	.115		5.042	.000
Purchasing	.521	.078	.222	2.825	.000
Distribution	.345	.050	.395	6.865	.001

According to the findings, purchasing had a positive influence on the performance of FMCG manufacturers in Nairobi County ($\beta_1=0.521$, p-value=0.000). This implied that an increase in the utilization of purchasing techniques led to a 0.521 increase in performance of FMCG manufacturers. The results also showed that distribution had a positive influence on the performance of FMCG manufacturers in Nairobi County ($\beta_2=0.345$, p-value=0.001). This inferred that a unit increase in distribution efficiency resulted in a 0.345 improvement in the supply chain performance of FMCG manufacturers in Nairobi County.

Table 5: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.876	.767	.712	.09638

The R-squared shows the variation in the dependent variable that can be explained by the independent variables being studied. The R-squared in this study was 0.767, which implied that the four independent variables explained up to 76.7% of the dependent variable. Therefore, the selected variables were suitable in expressing the features of the dependent variable.

Analysis of variance (ANOVA)

The analysis of variance showed whether or not a model was a goodness fit for the data.

Table 6: Analysis of Variance (ANOVA)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	15.65	2	7.825	308.071	.000 ^b
Residual	1.9558	77	.0254		
Total	17.6058	79			

The numerator for $\alpha = 5\%$ whose degree of freedom (df) = 10, denominator (df) = 69 and critical F-critical is (2.606). The findings below showed that the calculated F value as (308.071) which was greater than the F-critical (2.606), which depicted that the model was used in predicting the influence of the independent variables on the dependent variable. Besides, the P-value (0.000) was less than the significance level (0.05), which confirmed that the model was a good fit.

Conclusion

The study concludes that with proper purchasing, strategies, effectiveness could be achieved in an organization. Additionally, competitive selection of suppliers during the procurement phase of supply chain management forms the basis for effective performance in a company. Therefore, performance has a strong relationship with the approaches to purchasing through the supply chain management process. Evaluating supplier during the purchasing phase of supply chain management is a critical parameter towards competitiveness. This is a clear indication that the element of purchasing in supply chain management can be used to earn a competitive advantage for fast moving goods manufacturers.

Distribution is the blueprint of supply chain management activities which plays a critical part in a company's competitive advantage. Therefore, the role of distribution is considered essential by fast-moving manufacturers. Additionally, floor management is an effective part of a distribution that enables supply chain to instill effective flow of material in and out of the organization. This indicates a strong correlation between distribution and the performance of goods manufacturing firm.

Recommendation

The study found that the use of purchasing practices leads to the elimination of waste, acquiring the best quality, reducing cost, and meeting the needs of customers among manufacturing firms. The study, therefore, recommends that all FMCG should align purchasing agendas with the overall objectives of the company to gain competitiveness.

The study also established that distribution played a critical role in incorporating supply chain management practices in manufacturing firms. The manufacturers should focus on floor, distribution, and logistics management in a bid to enhance their performance.

The study was conducted in Nairobi, and due to the difference in the business environment in different parts of Kenya, generalizing the findings of this study is not possible. Therefore, the study suggests similar studies in other Counties in Kenya.

REFERENCES

- Amarnath, S. (2013). Financing the agricultural value chain basic experiences. Retrieved on October 9, 2018, from <http://www.ruralfinanceandinvestment.org>
- Analysis. Phalanx, 48(2), 32-37. Retrieved on 21 August, 2018 from
- Apte, A. (2010). *Humanitarian logistics: A New Field of Research and Action. Foundations and Trends(R) in Technology, Information and Operations Management*. New York: Now Published Inc.
- Bag, S. (2012). World-class procurement practices and its impact on firm performance: A selected case study of an Indian manufacturing firm. *Journal of Supply Chain Management Systems, 1*(3), 27.
- Beamon, B.M. (2014): Measuring supply chain performance. *International Journal of Operations & Production Management, 19*(3), 275–292.
- Bhattacharjee, A. (2012). *Social science research: Principles, Methods, and Practices*. New York: Free Press.
- Dahiya, D., Gupta, M., & Jain, P. (2012). Enterprise knowledge management system: A multi-agent perspective. *Information Systems, Technology, and Management, 285*(4), 271-281.
- Darian-Smith, E., & McCarty, P. (2017). Global research design. In *The Global Turn*:
- GoK. (2011). *Agricultural sector development support program. Government of Kenya, Ministry of Agriculture*. Nairobi: Published by Ministry of Agriculture.
- Haddad, W., Chellaboina, V., & Nersesov, S. (2012). Dynamical system theory. In *Thermodynamics: A Dynamical Systems Approach* (pp. 17-44). Princeton University Press. Retrieved on January 21, 2019, from <http://www.jstor.org/stable/j.ctt7s1k3.5>
- Kepher, A. B., Shalle, I. N., & Oduma, E. (2015). Role of supplier management on procurement performance in the manufacturing sector in Kenya: A case of East African Breweries, Kenya. *International Journal of Social Science and Humanities Research, 3*(4), 540-555.
- Kirande, J. (2014). Determinants affecting public procurement performance in Kenyan universities: A Case of the Co-operative University College of Kenya. *International Academic Journals, 1*(1), 104-123.
- Kitheka, S. M. (2013). The effect of supplier quality management on organizational performance: a survey of supermarkets in Kakamega town. *International Journal of Business and Commerce, 3*(1), 71-82.

- Macharia, P. N., & Ochiri, G. (2014). Effect of e-procurement implementation on the performance of hospitality training institution in Kenya: Case of Kenya Utalii College. Nairobi County. *European Journal of Business Management, 2(1)*, 336-341.
- Mungai, P. M. (2014). Influence of supplier appraisal on procurement performance in the real estate industry in Kenya: A Case Study of International House Ltd. *International Journal of Operations and Logistics Management, 3(3)*, 250-262.
- Porter, M. (2010). Competitive strategy: *Techniques for Analyzing Industries and Competitor*.
- Price, G. (2012). The theory of integration. *Transactions of the American Mathematical Society, 47(1)*, 1-50.
- Rots, V. (2010). Research methodology. In *Prehension and Hafting Traces on Flint Tools: A Methodology* (pp. 7-36). Leuven University Press. Retrieved on January 22, 2019, from <http://www.jstor.org/stable/j.ctt9qf05s.9>
- Shaw, L. (2011). System theory. *Science, 149(3687)*, 1005-1005. Retrieved on January 21, 2019, from <http://www.jstor.org/stable/1716634>