



CATEGORY MANAGEMENT PRACTICES AND SUPPLY CHAIN PERFORMANCE OF SUPERMARKETS IN NAIROBI

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ABSTRACT: Supply chain Category management is a relatively new concept in Kenya and it has been deployed by a few multinational retail firms to ensure commonly used goods and services are not separately purchased by the various functional teams but are sourced through a single process able to leverage on its total spend in the market for the relevant category. The resultant benefits are, better value for money through aggregation of demand, standardizing of specification, enhanced supplier relationship, proper and cost effective procurement skill utilization in market watching and analysis. Many supermarkets are at crossroads, either to continue doing the transactional sourcing, offer strategic sourcing solution to the business or broaden their approach to include category management. This study sought to determine the effect of category management practices on supply chain performance of supermarkets in Nairobi. The objectives of the study were to establish the category management practices used by Supermarkets in Nairobi, Kenya and to establish the relationship between category management practices and supply chain performance of supermarkets in Nairobi. The independent variable was category management practices as measured by Planogramming, product assortment, in store/shopper marketing, promotion and pricing. Supply chain performance was the dependent variable which the study sought to explain and it was measured by cost reduction, responsiveness, flexibility, service delivery and efficiency of asset utilization. Primary data was collected from supermarkets in Nairobi with the aid of questionnaires. The number of questionnaires that were administered was 80. A total of 77 questionnaires were properly filled and returned. This represented an overall successful response rate of 96.25%. The study employed a descriptive research design and a multiple linear regression model was used to analyze the relationship between the variables. Statistical package for social sciences version 21 was used for data analysis purposes. The results of the study indicated that supermarkets are practicing category management practices to a great extent. Planogramming, product assortment, in store/shopper marketing, promotion and pricing were found to be satisfactory variables in explaining Supply chain performance. This is supported by coefficient of determination also known as the R square of 58.6%. This means that the category management practices selected for the study explain 58.6% of the variations in the dependent variable which is Supply chain performance. Further, the results imply that the independent variables are good predictors of supply chain performance. This was supported by an F statistic of 20.127 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level. This study recommended that organizational employees especially from the supply chain management should be trained further on the various aspects of category chain management practices and the need for the same towards boosting overall firm performance.

Keywords: In Store Shopper Marketing, Planogramming, Pricing, Supply Chain Performance

1. INTRODUCTION

1.1. Background of the Study

The recent advances in knowledge concerning the proper role of category management within the modern organization overshadow completely the early work and study devoted to this function. Knowledge of what has happened in the past often will give one a keen insight into the problems of today and a better picture of what may occur in the future. Supermarkets have dealt with these challenges through utilization and implementation of category management practices implementation with the help of association between trading partners who have combined their strengths in different fields to attain better supply chain performance (Brown, 2011).

Various constraints limit the performance of supply chains that deal with fast flowing consumer commodities in supermarkets Supply chain systems and this is viewed dynamic since they have to be

frequently adjusted to suit the changing consumer preferences and offer the consumers a broad variety of products. Supply chain systems are expanding around the globe each day which makes many supply chain to face adverse challenges due to the high level of responsiveness which they have to maintain (Erick, 2012). Supply chain management professionals have however tried improving the supermarkets performance by applying supply chain management initiatives, which are in line with category management practices. Today purchasing functions are presented with opportunities to add significant value to the organization like never before with category management being one of the important enablers needed in order to realize these opportunities with several studies conducted by supply chain management researchers on practices related to Category Management practices and how they influence supermarkets supply chain performance (Delta, 2010).

1.2. Category Management Practices

Category management refers to a set of practices and framework used in the management of supply categories so as to meet the goals of the business. This framework stipulates the manner in which lower level methodologies such as supplier relationship management and strategic sourcing helps in attainment of both business objectives and category objectives (Mitchell, 2012). This implies that the procurement department needs to be blended into other company functions to make it more conversant about new consumer preferences which require new routines with regard to purchasing (Axelsson, 2011). The success of category management is based on its six building blocks which are: Planogramming, Product assortment, in store/shopper marketing, Promotion, pricing and consumer survey.

Planogramming of products as a category management practice refers to providing convenience to the customer, that is ensuring the right product, where and when needed. Rafiq and Ahmed (2005) claim that planogramming is a form of merchandising and need to be considered in all merchandising systems.

Product assortment practices refers to the different types of products that a business makes or a retailer offers for sale for each given category that consist of the following characteristics; width, depth, length and consistency of a category. The use of product assortment practice to achieve sustainable differentiation is getting more difficult in the current retail environment due to decline in the relevance of location as the internet-based.

According to Young (2009), Shopper marketing refers to brand marketing in the retail market. It therefore includes displays, category management, packaging, sales, promotion, marketing and research. Shopper marketing entails understanding the behavior of the firm's target, in different various supply chain channels and the leveraging of this intelligence so that it can benefit the stake-holders defined as consumers, brands, shoppers and retailers in different categories within the supermarkets.

The promotion practices in different categories consists of advertising, sales promotion, personal selling, direct marketing and public relations. These promotion activities inform retailers about products in a given category within supply chain and persuade the distribution channels. The main objective of promotion in various categories as a practice is to combine the components of promotion into a channel for conveying information to the buyers and other stakeholders who have an influence in purchasing decision of the buyer. The promotion mix must be able to build desire in the prospective customers (Cravens and Piercy, 2003).

Pricing practices is a method adopted by firm to set selling price of products in a given category within supply chain. Pricing allows category formation through products of similar prices placed together (Sollish, 2011). Pricing strategies are ways in which the pricing objectives of a firm are to be attained. To formulate them, a supply chain manager ought to be guided by the external and internal conditions facing the firm in order to select the best choice of strategies. (Cravens and Piercy, 2003) argues that when setting pricing strategies, a market oriented firm would be expected to factor all pricing elements into the decision making process and still meet the customer needs.

Consumer survey practices refer to a consumer research technique whereby information is gathered from selected samples by use of a questionnaire regarding the category practices in a firm (Mitchell, 2012). Consumer perceptions indicate whether satisfaction has been attained by the consumer or not. Perception is a subject of time and is defined as a rather continuous process since it's used to equate the level satisfaction or dissatisfaction. Perceptions compromise all aspects such as fiction, fantasy and facts. If customers believe in their perceptions, though, the perceptions have the weight of fact.

1.3. Supply Chain Performance

Supply Chain Performance is described as the ability of the supply chain to carry out activities which lead to the attainment of the customer needs such as the availability of products, timely deliveries

and the ability to deliver performance. [Chavez and Gunter \(2012\)](#) asserts that the supply chain performance evaluation system strategically monitors and evaluates the performance of the supply chain. This implies that effective supply chain performance need to be conducted so as to attain effective strategic evaluation of purchase decisions which influences “make – versus- buy” decisions, the type of competitive strategies to adopt and the choice between relational forms of exchange and the market. All these decisions are critical upon the formation of all owner-supplier relationship in the procurement process.

Different literature studies that have been conducted have shown various approaches that can be used to measure the performance of the supply chain. The supply chain council suggested the Supply Chain Operations Reference (SCOR) approach as a model that can be used in the measurement of the performance of the supply chain. This model breaks down supply chain activities into five major processes. This involves planning; sourcing; making; delivery and returning. The multiple performance criteria management of performance used in these processes include responsiveness, flexibility, cost, asset efficiency utilization and reliability. This model applies to all industries since it is generic (Supply-chain Council, 2015). This method is efficient since it is balanced and multidimensional and considers the entire supply chain system. This approach is however limiting since it fails to describe each business activity or process. It also fails to address quality, training, and administration.

1.4. Supermarkets in Nairobi

Kenya has been ranked as the second largest formalized economy in Africa coming after South Africa by Nielsen which is a New-York stock exchange research firm in a consumer report which studied five countries in the Sub-Saharan Africa. This study indicated that 41% of Kenyan buyers occasionally form retail outlets due to the products offered by retailers which cannot be found in the traditional outlets.

There has been a tremendous growth in the retail industry especially with the establishment of supermarket chains expanding beyond the boundaries of Kenya. There was an improvement in sales in the industry during the review period leading to an increase in the GDP of the economy. The retail stores industry is highly dynamic with supermarkets ranging from partnerships and sole proprietors like Jack n Jill, Ebrahims, Tumaini, EastMatt, and limited liability companies (Tuskys, Nakumatt Holdings, Ukwala and Naivas) and companies owned by the public such as the Uchumi Supermarket Ltd ([Wangari, 2012](#)).

Category management practices have not been implemented fully since it is a relatively new concept among Kenyan retailers which have gained momentum over the last five or so years and it is now starting to be seen and felt among retailers as substantial value adding concept with immense contribution to the profitability of the supermarkets This is largely evident through cost reduction initiatives, supplier management processes, outsourcing and overall business value creation. With this kind of impact, supply chain is being elevated to its rightful place in organizations where head of procurements/ procurement directors has direct reporting lines to chief executive officer ([Pfeffer, 2010](#)).

Supply chain operating costs has been on the rise due to high operational costs and hence a depressed growth in the sector with the benefits not attained due to analysis and improvements in the process of procurement and appreciating the fact that challenges will always be there. Category management leads to market share growth, improved service delivery, provide invaluable analytics for continuous improvement and improved suppliers and distribution channels ([Okwiri, 2015](#)).

1.5. Research Focus

There are numerous benefits and challenges in implementation of category practices which include restructuring of the procurement function, change management, training or hiring staffs that have the right competence for the roles, approach and structure. There is substantial cost to this effort and the category management strategy must pay off this investment ([Adyang, 2012](#)). The category management practices implementation strategy comes up with innovative activities to create more value and reduce cost to the business ([Walker and Brammer, 2015](#)). However, supermarkets need to review their performance against plan and more important evaluate the return on investment (ROI) to validate category management viability ([Faan, 2012](#)). Supply chains have become more dispersed globally which has led to the introduction of more challenges in maintenance of high level of responsiveness.

Supply chain Category management is a relatively new concept in Kenya and it has been deployed by a few multinational retail firms to ensure commonly used goods and services are not separately purchased by the various functional teams but are sourced through a single process able to leverage on its total spend in the market for the relevant category. The resultant benefits are, better value for money

through aggregation of demand, standardizing of specification, enhanced supplier relationship, proper & cost effective procurement skill utilization in market watching and analysis.

Many supermarkets are at crossroads, either to continue doing the transactional sourcing, offer strategic sourcing solution to the business or broaden their approach to include category management. Most supermarkets are now passionate about supply chains ability to unlock productivity avenues. A limited number of studies have been conducted on the benefits and challenges of value creating procurement management survey by the focused in Europe and transforming procurement and releasing efficiencies through category management at Leicestershire county council

Mutinda (2015) conducted a study to establish the relationship between category management and procurement performance among commercial banks in Kenya. The study had three objectives: to determine category management practices implemented by commercial banks in Kenya, to establish the relationship between category management and procurement performance among commercial banks in Kenya and to establish the challenges faced in the implementation of category management philosophy among commercial banks in Kenya. The research design involved a cross sectional survey of all commercial banks in Kenya. The study established that most of the commercial banks in Kenya have implemented category management for more than five years. It was also evident that there was a very significant relationship between category management and procurement performance.

These studies have been conducted majorly in Europe. No known study has focused on category management practices and supply chain performance of supermarkets in Nairobi Kenya. The purpose of this study is to fill the knowledge gap through addressing the following questions; what are the category management practices used by retail firms Nairobi County, Kenya? And what is the relationship between category management practices and supply chain performance of retail firms Nairobi County, Kenya?

1.6. Research objectives

To determine the category management practices used by supermarkets in Nairobi, Kenya. To establish the relationship between category management practices and supply chain performance among retail firms.

2. RESEARCH METHODOLOGY

2.1 Research Design

Descriptive research design was adopted in this study. A research design is the data collection process which helps in hypothesis testing so as to give answers to questions regarding the subject under study Mugenda and Mugenda (2003). The design will be adopted as the researcher has interest in the state of affairs in a particular field and the variables should not be manipulated.

The unit of the study was the supermarkets in Nairobi Kenya. Thus the population of this study was made up of 40 supermarkets in Nairobi (refer to appendix II) for this study, a census was carried out since the population is relatively small.

2.2. Data Collection

The study used primary data which will be collected through semi structured questionnaire. The questions are constructed in order to address particular objectives and offer a variety of possible responses. The questionnaires were directed to the supply chain heads that are well conversant with companies' operations. The questionnaires were administered through a drop and pick later method.

2.3. Data Analysis

Data collected was screened for accuracy, consistency, uniformity and completeness in preparation for analysis. The data was summarized and tabulated using descriptive measures. Factor analysis was used to identify the underlying factors. The resulting factors were used as independent variables and the supply chain performance as the dependent variable.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

Where;

Y = the dependent variable of each Supply chain performance indicator i.e. Cost reduction, Responsiveness, Flexibility, Reliability and Efficiency of asset utilization

α – This is a constant i.e. it is the Y value when all the variables (X_1, X_2, X_3, X_4 and X_5) equal zero

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 – Are constants regression coefficients which represent the condition of the independent variables to the dependent variables.

X_1 – Planogramming, X_2 – Product assortment, X_3 – In store/shopper marketing, X_4 – Promotion, X_5 - Pricing, ϵ (Extraneous) Error term explaining the variability of the factors that are not mentioned.

3. DATA ANALYSIS, RESULTS AND DISCUSSION

3.1. The Response Rate

The number of questionnaires that were administered was 80. A total of 77 questionnaires were properly filled and returned. This represented an overall successful response rate of 96.25% as shown in Table 1.

Table 1. Survey Response Rate

Response	Frequency	Percent
Returned	77	96.25%
Not returned	3	3.75%
Total	80	100%

Source: Author (2019)

3.2. Descriptive Statistics

The researcher conducted descriptive statistics on the data collected before conducting correlation and regression analysis. The descriptive analysis involved frequency, percentages, means and standard deviations. The statistics were presented in tables and charts.

3.3. Professional Experience

The respondents were further asked to indicate the number of years they had worked under supply chain performance. This question was asked to gauge on professional experience that they had in the sector. The results showed that most of the respondents, 45.5% had worked with the sector for a duration of 1-3 years. This category was followed by the category of them that had worked between 4-5 years at 31.2%. Thirdly the category that had worked for duration of 6-10 years stood at a percentage of 15.6%. Finally, them that had worked for a duration that is above 10 years came last at a percentage of 7.8%. This sector from this study has therefore been portrayed as one that has employees void of skills which basically are acquired with time. The majority in this sector are new entrants who might not really understand the dynamics of the current category management practices and their impact on performance. These results are shown in the table 2 below.

Table 2. Professional Experience

	Frequency	Percent	Valid Percent	Cumulative Percent
1-3 Years	35	45.5	45.5	45.5
4-5 Years	24	31.2	31.2	76.6
6 – 10 Years	12	15.6	15.6	92.2
Above 10 Years	6	7.8	7.8	100.0
Total	77	100.0	100.0	

Source: Author (2019)

3.4. Category Planogramming Practices

The first category management practice tested under this study was that of planogramming practices. The researcher engaged the respondent via questions whose answers ranged from sometimes through no and finally to yes. In the first question the respondents were asked whether at the supermarket, they find products easily without lot of searching. Majority of the respondents 44.2% indicated that they find products easily without lot of searching. This was followed by them that said no to this question at 29.9% and finally them that were of the sometimes response at 26%. According to these responses this study concluded that majority of the supermarkets here in Nairobi arrange their products well and therefore are aware of the role played by proper planogramming in enhancing customer satisfaction and smooth running of the entire buying process. These results are represented by the table 3 below. Planogramming of products as a category management practice refers to providing convenience to the customer, that is ensuring the right product, where and when needed. Rafiq and Ahmed (2005) claim that planogramming is a form of merchandising and need to be considered in all merchandising systems.

Table 3. Ease of Finding Products

		Frequency	Percent	Valid Percent	Cumulative Percent
	sometimes	20	26.0	26.0	26.0
	No	23	29.9	29.9	55.8
	Yes	34	44.2	44.2	100.0
	Total	77	100.0	100.0	

Source: Author (2019)

Respondents were also tasked by the question of whether they find the product displays in this supermarket to be attractive and appealing. Pertaining this question, majority said that yes they find the product displays in the supermarket to be attractive and appealing as represented by 51.9%. Secondly, them that said that they never found the product displays in the supermarkets attractive and appealing were represented by a percentage of 22.1. Finally, them that were of sometimes response were represented by a percentage of 26%. In regard to these results, the researcher concluded that majority of the supermarkets in Nairobi have their supply chain managers ensure that the supermarket shelves are attractive and appealing. Nevertheless, the fact that around 22.1% of the respondents were of an opposing view and again them that were indifferent at 26% still indicate that there is much that ought to be done in promoting attractiveness and appealing shelves in the supermarkets here in Nairobi. The above results are presented by [table 4](#) below.

Table 4. Product Display Attractiveness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	sometimes	20	26.0	26.0	26.0
	No	17	22.1	22.1	48.1
	Yes	40	51.9	51.9	100.0
	Total	77	100.0	100.0	

Source: Author (2019)

Finally under the first category management practices, respondents were asked to indicate whether they are able to move comfortably around the supermarket without hindrances. Majority of them agreed with this statement, 48.1% while 20.8% of the respondents said that they never moved comfortably within the supermarkets. This once again indicated that majority of supermarkets have started realizing on the impact of mobility on the entire purchase by the customers. These results are shown in the [table 5](#) below

Table 5. Ease of Movement in the Supermarkets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	16	20.8	20.8	20.8
	No	24	31.2	31.2	51.9
	Yes	37	48.1	48.1	100.0
	Total	77	100.0	100.0	

Source: Author (2019)

3.5. Product Assortment Practices

The question of whether one finds new products in the supermarket was tested by the researcher. Majority of the respondents, 42.9% agreed with this question whereas 34% did not accept. The least indicated that one would or would fail to find new products in the supermarkets (23.4%). The researcher therefore concluded that the supply chain employees were aware on the impact made by availability of new products in the shelves of their supermarkets. Basically new products will increase on the variety to choose on and therefore lead to more satisfaction by a customer choosing on his favorite. This has the impact of increasing on sales and also on a customer’s desire to have a repeated purchase. The researcher nevertheless highlights the big percentage, 33.8% that indicated that the supermarkets had no new goods and advised on the need to adopt this strategy of having a variety due to the aforementioned benefits. These results are shown in the [table 6](#) below.

Table 6. New Products in the Supermarket

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	18	23.4	23.4	23.4
	No	26	33.8	33.8	57.1
	Yes	33	42.9	42.9	100.0
	Total	77	100.0	100.0	

Source: Author (2019)

Respondents were asked to indicate whether they believed that their supermarkets carry a wide assortment of products to satisfy purchasing needs of the customers. From the research findings, majority of the respondents, 45.5% indicated that their supermarkets never had the right assortment to satisfy the purchasing needs of the customer. 39% indicated that their supermarkets had the right assortment and the least, 15.6% indicated that sometimes their supermarkets would have the right assortment to fulfill the purchasing requirements of the customers. These findings therefore indicated that many of the supermarkets had not fully developed into a one shopping centre as is expected of them. The researcher therefore recommends that the category management supervisors should arise and ensure that all departments are well stocked by ensuring a check on all supplies to the supermarket. Every department to be allocated supply heads to ensure continuous flow of products. This way, customers will be saved the need to keep visiting other places for shopping and consequently boost on his satisfaction. This has an impact on repeated purchase, referrals and the ultimate supermarket performance. These findings are shown in the [table 7](#) below.

Table 7. A Wide Assortment of Products

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	12	15.6	15.6	15.6
	No	35	45.5	45.5	61.0
	Yes	30	39.0	39.0	100.0
	Total	77	100.0	100.0	

Source: Author (2019)

3.6. Category In Store/ Shopper Marketing Practices

In order to test on shopper marketing practice, a number of questions were asked to the respondents. These questions are listed in the table 4.8 below. The first question was whether one finds staff in the supermarket as when one needs them. 41% which is the majority in this case said that they find them whereas 33.8% said no to this question. Conclusively, these responses indicate that majority of the supermarkets value their customers and therefore they have good customer care attendants. This therefore meant that the grievance of the customers are always met and therefore increased customer satisfaction which finally translates to improved performance of the supermarkets.

In addition, the respondents were to answer to the question of whether the service staffs in their supermarket had adequate product and supermarket knowledge to answer ones' questions and queries. Surprisingly enough, majority, 42.9% indicated that they never thought the supermarkets had adequate product and supermarket knowledge to answer all their questions and queries. 37.7% agreed with this statement while 19.5% thought that at sometimes they would and at times they were not in a position. This study therefore concluded that majority of the supermarkets' employees and especially those in the supply department did not own enough product and firm knowledge. This therefore meant that customers were never fulfilled as they were shopping in these supermarkets. The study recommended that the supermarkets should have seminars and trainings to acquit their staff on the importance of product knowledge.

Another question that was raised in this study was concerning customer complaint management program in the supermarkets. Majority of the respondents, 42.9% indicated that they were content with the program. 37.7% of the respondents indicated that they were not content with the customer complaint program. The researcher therefore concluded that handling of complaints was not yet fully well implemented by many supermarkets though there was an upward uptake of the same. Basically, satisfied customers will make a repeated purchase, bring referrals and therefore it should be at the heart of supermarkets and other business to handle their complaints well. Regarding hygiene and safety standards, 49.4%, representing a majority indicated that their supermarkets follows and practices these standards. A minority of 24.7% revealed that their supermarkets never follow these standards. Conclusively, majority of supermarkets in Nairobi adhere to hygiene and safety standards. Finally, a question pertaining to

whether one receives the service that he deserves while shopping at this supermarket was tested. Majority of the respondents (41.6%) revealed that they would get the services they wanted in the supermarkets whereas a minority of 28.6% indicated otherwise. Therefore the researcher concluded that the supermarkets in Nairobi offered satisfactory services to their customers. These results are shown in [table 8](#) below.

Table 8. Category In store/ Shopper Marketing Practice

Statements	Sometimes	No	yes
Do you find service staff in this supermarket as and when one is needed?	24.7%	33.8%	41.6%
Do you think that the service staffs in this supermarket have adequate product and supermarket knowledge to answer your questions and queries?	19.5%	37.7%	42.9%
Are you content with the customer complaint management program in this supermarket?	20.8%	45.5%	33.8%
Do you think that this supermarket follows and practices adequate safety and hygiene standards?	26.0%	24.7%	49.4%
Do you receive the service that you deserve while shopping at this supermarket?	29.9%	28.6%	41.6%

Source: Author (2019)

3.7. Category Promotion Practice

This study aimed at determining whether supermarkets in Nairobi had adopted promotion as one of the category management practices. This was conducted through a number of questions to the respondents. In the first question, the researcher wanted to identify whether the respondent considered the types of promotions undertaken by their supermarket to be appropriate. Majority of them were (44.2%) in agreement with this statement and therefore the conclusion that many of the supermarkets were engaging themselves in right promotion strategies. Nevertheless this percentage is still small and thus there is still room for improvement by the supply chain heads so as to boost on the profits. Proper and successful promotion has the role of attracting new clients, retaining the existing ones and also giving them the vigor to attract referrals. These results are shown in the [table 9](#) below.

The promotion practices in different supply chain categories consists of advertising, sales promotion, personal selling, direct marketing and public relations. These promotion activities inform retailers about products in a given category within supply chain and persuade the distribution channels. The main objective of promotion in various categories as a practice is to combine the components of promotion into a channel for conveying information to the buyers and other stakeholders who have an influence in purchasing decision of the buyer. The promotion mix must be able to build desire in the prospective customers ([Cravens and Piercy, 2003](#)).

Table 9. Category promotion practice

Statements	sometimes	No	yes
Do you consider the types of promotions undertaken by this supermarket to be appropriate?	26.0%	29.9%	44.2%
Do you consider the frequency of promotions by this supermarket to be at an adequate level?	29.9%	31.2%	39.0%
Do you consider category promotions by this supermarket to be effective in capturing customer attention?	32.5%	31.2%	36.4%

Source: Author (2019)

3.8. Category Pricing Practices

In this study, the last category practice that the researcher observed was that of pricing. The researcher wanted to determine whether supermarkets in Nairobi had adopted proper pricing as a categorical management practice under supply and also determine the impact it has on the entire supply chain performance. In order to establish this, a number of questions were asked to the respondents. In the first question, the researcher wanted to establish whether customers believed that they were paying more than the product's value when buying at the supermarket. Surprisingly, majority of the respondents (42.9%) were contented with the products prices in the supermarket. Moreover, the respondents were tasked regarding the total value of their shopping basket and that of individual items. Majority were of the idea that the total value of their shopping basket is more than the value of individual items (46.8%). Consequently, majority of the respondents (42.9) indicated that they believed that their supermarkets provided lowest pricing when compared to other supermarkets. Finally, majority of the respondents

(49.4%) also revealed a satisfaction with the pricing levels in their supermarkets. From these results, the study concluded that many of the supermarkets in Nairobi have adopted pricing as one of the categorical management practice. These findings are shown in [table 10](#) below.

Pricing allows category formation through products of similar prices placed together ([Sollish, 2011](#)). Pricing strategies are ways in which the pricing objectives of a firm are to be attained. To formulate them, a supply chain manager ought to be guided by the external and internal conditions facing the firm in order to select the best choice of strategies. [Cravens and Piercy \(2003\)](#) argues that when setting pricing strategies, a market oriented firm would be expected to factor all pricing elements into the decision making process and still meet the customer needs.

Table 10. Category Pricing Practices

	Sometimes	No	Yes
When buying a product at this supermarket, do you believe that you are paying more than the product's value?	24.7%	42.9%	32.5%
Do you think that the total value of your shopping basket is more than the value of individual items?	31.2%	22.1%	46.8%
Do you think that this supermarket provides lowest pricing when compared to other supermarkets?	22.1%	35.1%	42.9%
Are you satisfied with the pricing levels in this supermarket?	22.1%	28.6%	49.4%

Source: Author (2019)

3.9. Category Management Practices and Supply Chain Performance

This section aimed at identifying the impact of category management practices on supply chain performance. The indicators that were scrutinized were those of cost reduction, responsiveness, flexibility, service delivery, efficiency of asserts and flexibility. Under cost reduction, majority (means=4, standard deviation=1) were in agreement with the fact that category management practices had led to cost reduction. Secondly, majority agreed that utilization of category management practices led to responsiveness in business operations towards meeting the demands of customers. This is supported by a means of 4 and a standard deviation of 1. Thirdly, respondents were to indicate whether category management practices had any impact on flexibility. Majority of them (means=4, standard deviation=1) revealed that category management practices brought about flexibility in the work place. Category management practices were also seen to boost on service delivery (means=4, standard deviation=1). Regarding efficiency of assets, majority agreed that category management practices improved on it (means=4, standard deviation=1). On average, majority of the respondents were seen to be ageing with many of these statements as indicated by an overall means of 4 and being supported by a standard deviation of 1. Therefore the study concluded that category management practices led to an increase in cost reduction, responsiveness, flexibility, service delivery, efficiency of asserts and flexibility. These results are shown by [table 11](#) below. The findings were in agreement with those of [O'Brien \(2012\)](#) who argued that category management not only brings together the procurement department, but the entire organization which leads to improved supply chain performance processes, resources ,activities and knowledge for a certain commodity.

Implementation of category management practices also results into improvement in value in relation to reduction of cost, risk and price, brand/product value, increased innovation, a stronger competitive position and greater effectiveness. It contributes to EBIT (earnings before interest and taxation) and can make a solid contribution to share-holder equity [Adyang \(2012\)](#).

Table 11. Category Management Practices and Supply Chain Performance

	Strongly disagree	disagree	Neutral	Agree	strongly agree	Mean	Standard Deviation
Cost reduction	2.6%	15.6%	15.6%	29.9%	36.4%	4	1
Responsiveness	2.6%	13.0%	20.8%	31.2%	32.5%	4	1
Flexibility	7.8%	15.6%	15.6%	36.4%	24.7%	4	1
Service delivery	7.8%	11.7%	22.1%	23.4%	35.1%	4	1
Efficiency of asset utilization	2.6%	16.9%	20.8%	26.0%	33.8%	4	1
Average						4	1

Source: Author (2019)

Rate using a scale of 1-5, where: 1 strongly disagree, 2 Disagree, 3 neither agree nor disagree, 4 agree, 5 strongly agree.

3.10. Correlation Analysis

Table 12 below presents the results of the correlation analysis. The results revealed that Planogramming, and supply chain performance were positively and significantly related ($r=0.468$, $p=0.000$). The results further indicated that Product assortment and Supply chain performance were positively and significantly related ($r=0.426$, $p=0.000$). It was further established that In store/shopper marketing and Supply chain performance were positively and significantly related ($r=0.476$, $p=0.000$). Similarly, the results showed that Promotion and Supply chain performance were positively and significantly related ($r=0.415$, $p=0.000$). Finally the study established that there was a positive and significant correlation between pricing and Supply chain performance ($r=0.505$, $p=0.000$). This implies that an increase in any unit of the variables leads to an increase in supply chain performance. These results are shown in table 12 below.

Table 12. Correlation Matrix

Correlations		Supply chain performance	planogramming	Shopper Marketing	promotion	pricing	Product assortment
supply chain performance	Pearson Correlation	1	.468**	.426**	.476**	.415**	.505**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	77	77	77	77	77	77
Planogramming	Pearson Correlation	.468**	1	.318**	.332**	.061	.180
	Sig. (2-tailed)	.000		.005	.003	.046	.000
	N	77	77	77	77	77	77
Shopper Marketing	Pearson Correlation	.426**	.318**	1	.302**	.280*	.140
	Sig. (2-tailed)	.000	.005		.008	.014	.031
	N	77	77	77	77	77	77
Promotion	Pearson Correlation	.476**	.332**	.302**	1	.497**	.206
	Sig. (2-tailed)	.000	.003	.008		.000	.003
	N	77	77	77	77	77	77
Pricing	Pearson Correlation	.415**	.061	.280*	.497**	1	.425**
	Sig. (2-tailed)	.000	.046	.014	.000		.000
	N	77	77	77	77	77	77
Product assortment	Pearson Correlation	.505**	.180	.140	.206	.425**	1
	Sig. (2-tailed)	.000	.000	.031	.003	.000	
	N	77	77	77	77	77	77

Source: Author (2019)

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

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

3.11. Regression Analysis and Hypothesis Testing

The results presented in table 13 present the fitness of model used of the regression model in explaining the study phenomena. Planogramming, product assortment, in store/shopper marketing, promotion and pricing were found to be satisfactory variables in explaining Supply chain performance. This is supported by coefficient of determination also known as the R square of 58.6%. This means that Planogramming, Product assortment, Instore/shopper marketing, Promotion and Pricing which represent category management practices explain 58.6% of the variations in the dependent variable which is Supply chain performance. These results also imply that the model applied to link the relationship of the variables was satisfactory.

Table 13. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.766 ^a	.586	.557	.35515

Source: Author (2019)

a. Predictors: (Constant), product assortment, planogramming Instore shopper marketing, promotion, pricing.

In statistics significance testing the p-value indicates the level of relation of the independent variable to the dependent variable. If the significance number is found to be less than the critical value also known as the probability value (p) which is statistically set at 0.05, then the conclusion would be that the model is significant in explaining the relationship; otherwise the model would be regarded as non-significant.

Table 14 provides the results on the analysis of the variance (ANOVA). The results indicate that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of supply chain performance. This was supported by an F statistic of 20.127 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level.

Table 14. Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.693	5	2.539	20.127	.000 ^b
	Residual	8.955	71	.126		
	Total	21.649	76			
a. Dependent Variable: supply chain performance						
b. Predictors: (Constant), product assortment, planogramming, shopper marketing, promotion, pricing						

Source: Author (2019)

Regression of coefficients results in Table 15 below shows that planogramming and supply chain performance are positively and significantly related ($r=0.213$, $p=0.000$). An increase in the unit change in planogramming would lead to an increase in supply chain performance by 0.213 units. The results further indicate that in store/shopper marketing and supply chain performance were positively and significantly related ($r=0.267$, $p=0.020$). These results imply that an increase in the unit change in in store/shopper marketing would lead to an increase in the supply chain performance by 0.267 units. It was further established that promotion and supply chain performance were positively and significantly related ($r=0.332$, $p=0.000$). This meant that a unit change in promotion would lead to 0.332units in supply chain performance. Moreover, pricing and product assortment, and supply chain performance were also positively and significantly related ($r=0.59$, $p=0.028$ and $r=0.463$, $p=0.000$ respectively). This shows that an increase in the unit change in, pricing and product assortment would lead to an increase in supply chain performance by 0.028 and 0.463 units respectively.

Table 15. Regression of Coefficients

Model		Coefficients				T	Sig.
		Unstandardized Coefficients		Standardized Coefficients	Beta		
		B	Std. Error				
1	(Constant)	1.399	.334		4.194	.000	
	Planogramming	.213	.088	.113	2.042	.000	
	Shopper-marketing	.267	.112	.199	2.379	.020	
	Promotion	.332	.078	.375	4.288	.000	
	Pricing	.059	.093	.057	.635	.028	
	Product assortment	.463	.087	.442	5.306	.000	

Source: Author (2019)

a. Dependent Variable: supply chain performance

Thus, the optimal model for the study is;

$$\text{Supply chain performance} = 1.399 + 0.213 \text{ planogramming} + 0.267 \text{ Shopper-marketing} + 0.332 \text{ promotions} + 0.059 \text{ pricing} + 0.463 \text{ Product assortments.}$$

3.12. Discussion of Research Findings

This study sought to determine the category management practices used by supermarkets in Nairobi, Kenya. The study had two main objectives. The first objective of the study was to establish the category management practices used by Supermarkets in Nairobi, Kenya while the second objective was to establish the relationship between category management practices and supply chain performance among retail supermarkets in Nairobi County, Kenya. Primary data was collected by aid of questionnaires while

descriptive research design was applied to aid analysis. The researcher conducted descriptive correlation and regression analysis in order to address the research objectives of the study.

The results of the study revealed that Planogramming, and supply chain performance were positively and significantly related ($r=0.468$, $p=0.000$). The results further indicated that Product assortment and Supply chain performance were positively and significantly related ($r=0.426$, $p=0.000$). It was further established that In store/shopper marketing and Supply chain performance were positively and significantly related ($r=0.476$, $p=0.000$). Similarly, the results showed that Promotion and Supply chain performance were positively and significantly related ($r=0.415$, $p=0.000$). Finally the study established that there was a positive and significant correlation between pricing and Supply chain performance ($r=0.505$, $p=0.000$). This implies that an increase in any unit of the variables leads to an increase in supply chain performance.

Planogramming, product assortment, in store/shopper marketing, promotion and pricing were found to be satisfactory variables in explaining Supply chain performance. This is supported by coefficient of determination also known as the R square of 58.6%. This means that Planogramming, Product assortment, In store/shopper marketing, Promotion and Pricing which represent category management practices explain 58.6% of the variations in the dependent variable which is Supply chain performance. These results also imply that the model applied to link the relationship of the variables was satisfactory. The results indicate that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of supply chain performance. This was supported by an F statistic of 20.127 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level.

The findings of this study are in agreement with [Mutinda \(2015\)](#) who conducted a study to establish the relationship between category management and procurement performance among commercial banks in Kenya. The study had three objectives: to determine category management practices implemented by commercial banks in Kenya, to establish the relationship between category management and procurement performance among commercial banks in Kenya and to establish the challenges faced in the implementation of category management philosophy among commercial banks in Kenya. The research design involved a cross sectional survey of all commercial banks in Kenya. Data was collected using a questionnaire that was administered through drop and pick later method. Descriptive statistics were used to analyze objective one and objective three whereas correlation and regression analysis was used to analyze the relationship between category management and procurement performance. The findings were presented in tables and charts. The study established that most of the commercial banks in Kenya have implemented category management for more than five years. It was also evident that there was a very significant relationship between category management and procurement performance.

4. SUMMARY, DISCUSSIONS, CONCLUSIONS, RECOMMENDATIONS

4.1. Category Management Practices used by Supermarkets in Nairobi, Kenya

The first objective of the study was to establish the category management practices used by Supermarkets in Nairobi, Kenya. In the first question the respondents were asked whether at the supermarket, they find products easily without lot of searching. Majority of the respondents 44.2% indicated that they find products easily without lot of searching. This was followed by them that said no to this question at 29.9% and finally them that were of the sometimes response at 26%. According to these responses this study concluded that majority of the supermarkets here in Nairobi arrange their products well and therefore are aware of the role played by proper planogramming in enhancing customer satisfaction and smooth running of the entire buying process. Planogramming of products as a category management practice refers to providing convenience to the customer, that is ensuring the right product, where and when needed. [Rafiq and Ahmed \(2005\)](#) claim that planogramming is a form of merchandising and need to be considered in all merchandising systems. Majority of the respondents (41.6%) revealed that they would get the services they wanted in the supermarkets whereas a minority of 28.6% indicated otherwise. Therefore the researcher concluded that the supermarkets in Nairobi offered satisfactory services to their customers.

This study also aimed at determining whether supermarkets in Nairobi had adopted promotion as one of the categorical management practices. This was conducted through a number of questions to the respondents. In the first question, the researcher wanted to identify whether the respondent considered the types of promotions undertaken by their supermarket to be appropriate. Majority of them were (44.2%) in agreement with this statement and therefore the conclusion that many of the supermarkets were engaging

themselves in right promotion strategies. Nevertheless this percentage is still small and thus there is still room for improvement by the supply chain heads so as to boost on the profits.

In this study, the last category practice that the researcher observed was that of pricing. In order to establish this, a number of questions were asked to the respondents. In the first question, the researcher wanted to establish whether customers believed that they were paying more than the product's value when buying at the supermarket. Surprisingly, majority of the respondents (42.9%) were contented with the products prices in the supermarket. Moreover, the respondents were tasked regarding the total value of their shopping basket and that of individual items. Majority were of the idea that the total value of their shopping basket is more than the value of individual items (46.8%). Consequently, majority of the respondents (42.9) indicated that they believed that their supermarkets provided lowest pricing when compared to other supermarkets. Finally, majority of the respondents (49.4%) also revealed a satisfaction with the pricing levels in their supermarkets. From these results, the study concluded that many of the supermarkets in Nairobi have adopted pricing as one of the categorical management practice.

The indicators that were scrutinized to measure category management practices were those of cost reduction, responsiveness, flexibility, service delivery, efficiency of asserts and flexibility. Under cost reduction, majority 66.3%, (29.9%+36.4) were in agreement with the fact that category management practices had led to cost reduction. Secondly, majority agreed that utilization of category management practices led to responsiveness in business operations towards meeting the demands of customers. This is supported by a means of 4 and a standard deviation of 1. Thirdly, respondents were to indicate whether category management practices had any impact on flexibility. Majority of them (means=4, standard deviation=1) revealed that category management practices brought about flexibility in the work place. Category management practices were also seen to boost on service delivery (means=4, standard deviation=1). Regarding efficiency of assets, majority agreed that category management practices improved on it (means=4, standard deviation=1). On average, majority of the respondents were seen to be ageing with many of these statements as indicated by an overall means of 4 and being supported by a standard deviation of 1. Therefore the study concluded that category management practices led to an increase in cost reduction, responsiveness, flexibility, service delivery, efficiency of asserts and flexibility. These results are shown by table 4.8 below. The findings were in agreement with those of [O'Brien \(2012\)](#) who argued that category management not only brings together the procurement department, but the entire organization which leads to improved supply chain performance processes, resources ,activities and knowledge for a certain commodity.

4.2. Relationship between Category Management Practices and Supply Chain Performance among Retail Firms in Supermarkets in Nairobi, Kenya

Planogramming, product assortment, in store/shopper marketing, promotion and pricing were found to be satisfactory variables in explaining Supply chain performance. This is supported by coefficient of determination also known as the R square of 58.6%. This means that Planogramming, Product assortment, In store/shopper marketing, Promotion and Pricing which represent category management practices explain 58.6% of the variations in the dependent variable which is Supply chain performance. These results also imply that the model applied to link the relationship of the variables was satisfactory. The results indicate that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of supply chain performance. This was supported by an F statistic of 20.127 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level.

5. CONCLUSIONS

Based on the findings above the study concluded that majority of the supermarkets in Nairobi have adopted category management practices (Planogramming, product assortment, instore/shopper marketing, promotion and pricing in their supply chain.

Based on the findings above the study concluded that planogramming, product assortment, instore/shopper marketing, promotion and pricing have a positive and a significant effect on supply chain performance.

The study also concluded that utilization of category management practices led to responsiveness and efficiency in business operations towards meeting the demands of customers. In addition, the study concluded that handling of complaints was not yet fully well implemented by many supermarkets though there was an upward uptake for the same. Moreover, the study concluded that though supermarkets in Nairobi have adopted promotion in their supply chain, this percentage is still small and thus there is still

room for improvement by the supply chain heads so as to boost on their profits. Proper and successful promotion has the role of attracting new clients, retaining the existing ones and also giving them the vigor to attract referrals.

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