

EFFECT OF VENDOR-MANAGED INVENTORY SYSTEM ON PERFORMANCE OF RETAIL OUTLETS IN KENYA

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Abstract: *Performance of retail outlets is of paramount importance to the world economy as well as the Kenyan economy since it ensures availability of goods to the general public as and when it is needed therefore fulfilling time, place, and possession and form utility. However, recent performance of the sector has been unstable with a number of big retail outlets going out of business which threatens the sector's contribution to Kenya's GDP and employment. Previous studies which have linked inventory management practices to performance of the retail outlets have focused on retail outlets in towns and cities with little attention being given to the role of inventory management practices in retail outlets in Kenyas rural counties such as Migori County. The main objective of the present study was to establish the effect of inventory management practices on performance of retail outlets in Kenya with a specific objectives of the study were: to determine the effect of Vendor-Managed Inventory system on performance of retail outlets in Migori County. The study adapted a descriptive survey design. The target population of the study were the stores managers of 66 retail stores in Migori County. All the 66 retail store managers from the 66 retail stores in Migori County were selected. Questionnaires were used to collect data. The collected data were analyzed descriptively. Based on findings for the study objective, VMI, which showed that control activities have a positive significant effect on performance of retail outlets hence implying that holding all factors constant, a unit increase in control activities leads to a significant increase in performance of retail outlets, it is concluded that control activities is an important factor in increasing performance of retail outlets in the organizations.*

Keywords: *vendor managed, inventory system, retail outlets*

Introduction

The current global business climate characterized by increasing competition implies that businesses need to be as efficient as possible at every level. One of these levels is inventory management. The need for efficiency in inventory management is of utmost importance because we live in the age of the informed consumer, meaning that a retailer should be able to offer first class service in terms of the availability of its products, as consumers can very easily take their business elsewhere. Inventory Management is receiving growing attention as an area in which efficiency and productivity can be made in order to improve customer service and lower costs. The primary goal of inventory management, therefore, is to have adequate quantities of high quality inventory available to serve customer needs, while also minimizing the costs of carrying inventory (Libby, Libby & Short, 2014).

According to Lea (2016), inventory management entails the forecasting and replenishment of inventory with the main purpose of optimizing services and profit. Quite often inventory management is merely regarded as an accountancy function, which concerns itself more with inventory valuation than with effective logistics. The purpose of inventory monitoring and measurement should therefore be to provide management with the necessary information to improve operations and to reduce errors in the supply function. Inventory management aims to provide both internal and external customers with are required service levels in terms of quantity and order rate fill. It also seeks to ascertain present and future requirements for all types of inventories to avoid overstocking in production (Silver, 2010).

Chow, Dubelaar and Larson (2011) observe that inventory management is critical to retail performance, since inventory tops the list of valuable physical assets on nearly every firm's performance. For many businesses, inventory is the largest asset on the balance sheet at any given time. Thus, purchasing too many units of a slow selling item will increase storage costs and interest costs on the 'short-term borrowings that financed the purchases, which may also lead to losses if the merchandise cannot be sold at the normal price (Libby, Libby & Short, 2014).

In inventory management, a choice between many existing forecasting and stock control packages is given, all of which rely on traditional mathematical, statistical and operational research theories. The effectiveness of an inventory management system depends on the quality of information it takes in and the capacity of the company's information technology (Chaffy & Wood, 2015). However, the effectiveness of the inventory management system between regions globally differs especially in the retailing sector due to difference in their stage of development.

As observed by Njambi and Katuse (2017), the importance of inventory management has continued to grow in Kenya with retail outlets requiring efficient models to deliver their products across the country and beyond and not so much on other manufacturing sectors. More so, majority of these retail stores have adopted third part inventory processes in their business to have improved inter-inventory management. According to Njambi and Katuse (2018), then, in an era of shrinking product life cycles, proliferation of product lines, shifting distribution chains and rapidly changing technological advancement, use of inventory has become an essential ingredient for organizations in gaining competitive advantage especially the retail industry. This is meant to achieve two basic objectives: Quality of Service and Low Cost of doing business as every other firms objective lies on quality service and minimum production cost.

Retail outlets in Kenya are stores that sell smaller quantities of products to the general Public for own consumption with an aim of making profit. These stores or outlets buy goods directly from manufacturers or wholesale suppliers at a volume discount and then mark them up in price for sale to end consumers. According to Wamugunda (2018), the retail outlet sector in Kenya is very important since it aids the development of local economy by creating employment as well as ensuring availability of goods to the public at the right time, form, place and quantities.

The retail stores are also important to the manufactures as a marketing platform since they are increasingly becoming popular venues used by marketers to build relationships with consumers (Njoroge, 2017). However, a number of studies have shown that the sector faces several challenges emanating from inventory management, increased operational costs and increased competition from international retail outlets. One of the measures introduced by a number of retail stores to improve performance is enactment of inventory management systems. The effect of these inventory management systems on performance of the retail stores has however not been established empirically.

The survey of three-hundred and fifty-one management accountants by Romano (2011) the National Association of Accountants (NAA) in a cross-section of diverse industries to evaluate the role of inventory management techniques in the U.S showed that vendor-managed inventory management approaches are facing increased levels of popularity; the researches also showed that vendor-managed inventory systems are experiencing increased usability among organizations. The study revealed a positive effect of the VMIS on firm performance. In addition, the research found out that a number of inventory management approaches, including assessing inventory levels and balancing stock-out costs in relation to expenses associated with higher inventory levels are infrequently used in practice. The study was however conducted in a developed country.

Mogere, Oloko and Okibo (2013) conducted a case study on Gianchore tea factory to assess how inventory control systems affect operational performance in the tea industry. Using a structured questionnaire to collect data and regression analysis, the study found out that use of material requirement planning, distribution planning, and vendor managed inventory had a positive influence on operations efficiency and by extension on organizational performance. Lwiki, Ojera, Mugenda and Wachira (2013) examined how inventory management practices used in the sugar manufacturing firms impact on those firms financial performance. The study used both primary data and secondary data. Correlation analysis results revealed that inventory management impacted positively with both return on sales and return on equity

On the other hand, Ngei and Kihara (2017) sought to find out how inventory management systems used in firms that manufacture Gas in Nairobi City County influence performance of those firms. The study used both primary and secondary data, and was analyzed using multiple regressions. Results revealed that Vendor Managed Inventory (VMI) significantly predicted performance of gas firms.

Statement of the problem

Kenya's Vision 2030 recognizes the importance of the retail sector, which contributes significantly to the country's GDP and employment. However, the retail industry in Kenya has faced challenges in recent years, with major players experiencing financial difficulties and closures. This has led to a decline in the sector's contribution to the GDP. Inventory management practices have been identified as a key factor in improving the performance of retail outlets. Previous studies have highlighted the importance of effective inventory management in reducing costs, controlling inventories, and improving customer service. However, there is a lack of specific policies to guide inventory management practices in Kenya. Improper quantities ordered can lead to stockouts or overstocking. This study aims to investigate the effect of inventory management practices on the performance of retail outlets in rural counties in Kenya. The findings of this study will contribute to the development of strategies to improve the performance of the retail sector in Kenya and achieve the goals of Vision 2030.

Justification of the Study

This study was motivated by the rising interest in inventory management which is receiving growing attention as an area in which efficiency and productivity can be made in order to improve customer service and lower costs for businesses. In the increasingly competitive environment, the retail firms are currently operating in, it is important to have operation strategies that ensure sustainable competitive advantage.

Research Methodology

The study adapted a descriptive survey design. The target population of the study were the stores managers of 66 retail stores in Migori County. All the 66 retail store managers from the 66 retail stores in Migori County

were selected. In this study primary data was collected through a questionnaire. The survey questionnaire was considered appropriate tool since it allowed quick and efficient data collection. It also allowed descriptive, correlation and inferential statistical analysis of the data collected. The questionnaire was designed to have Likert scale to assess the degree of the respondents’ agreement with particular variables of the study. The questionnaire was also designed to have closed questions to capture complete views of the respondents for wider generalization.

To answer the research question; “What is the effect of Vendor-Managed Inventory system on performance of retail outlets in Kenya?” the data was analyzed by use of inferential statistics of Analysis of Variance (ANOVA) and correlation and regression analyses. The research tested the following regression model;

$$Y = \beta_0 + \beta_1 X_1 + \epsilon$$

Where;

Y = Performance of the Retail Store

X_1 = Vendor Managed Inventory Management System

β_0 is the coefficient intercept

β_1 , is the parameter to be predicted.

ϵ being the random error term

Reliability of the Data Collection Instrument.

Instrument reliability refers to the consistency of scores or answers from one administration of an instrument to another, and from one set of items to another (Fraenkel & Wallen, 2003). Reliability was used to check the internal consistency of the data measuring instrument. For this study, Cronbach’s Alpha (α) was used to test for the instrument reliability. According to Cronbach (1952), the general assumption is that the correlation between all the items under consideration in the study ought to be positive since they are measuring the same thing. This further illustrates that a reliable coefficient should be between 0.00 and 1.00. However, as Nunally (1978) contends, a general rule for measuring Cronbach’s should be above 0.7.

Table 1: Reliability Statistics

Variables	Items	Item-Total Statistics				Reliability Statistics			
		Scale mean Item	Scale if variance	Corrected Item Total	Squared Multiple Correlation	Cronbach's Alpha Item	Cronbach's Alpha	Cronbach's Alpha	No. of Items
VIMS	VIMS1	46.6087	21.067	.450	.543	.826	.852	.862	6
	VIMS2	46.6957	24.040	-.037	.491	.857			
	VIMS3	46.4348	18.530	.756	.820	.799			
	VIMS4	46.4783	19.261	.810	.796	.799			
	VIMS5	46.6957	22.130	.219	.370	.845			
	VIMS6	46.8261	19.696	.476	.656	.826			
Overall, Alpha							.809	0.800	30

The study independent variable of the study was Vendor-Managed Inventory Management System (VIMS). This variable was measured by 6 items. The items were subjected to Cronbach’s alpha analysis. Results in Table 1 above indicate that the 6 items had a Cronbach’s alpha of 0.852. This means that all the items were reliable and were adopted for the main study.

Background Information of Respondents

A total of 78 questionnaires were issued according to the research framework. Because research assistants were employed to drop the questionnaires, a 100% percent response rate was achieved. The following section provides the descriptive statistics of the data. The responses obtained from the respondents were recorded in Table 2.

Table 2: Background Information

	N	%	
Nature of Retail Outlet	Supermarket	43	55
	Wholesale	31	40
	Combined	4	5
	Total	78	100.0
Period of Operation	Between 1 and 3 years	21	26.9
	Between 4 and 6 years	13	16.7
	More than 7 years	44	56.4
	Total	78	100.0

Results from the table 2, the response rate was 100%. Mugenda & Mugenda 1999, states that a response rate of 60% is good, and above 70% is perfect. Since the response rate is 100%, it is excellent.

Nature of Retail Store

The study first sought to establish the nature of the respondents in terms of their area of operation. This was necessary in order to gauge the maturity of the respondents in line with their understanding of Inventory Management Practices and Performance of retail outlets. From Table 2 above it can be seen that majority of the stores were supermarkets (N = 43, 55%), while those from the wholesale business making 40% (N =31). The least type of retail store was that which was combined supermarket and wholesale (N = 4, 5%). This implies that most of the retail stores in Migori County deal with the supermarket business.

Period of Operation

Studies have shown that the understanding of inventory management practices is directly correlated with time. The respondents were asked to indicate the period of operation of the retail stores. The information in Table 2s shows that 26.9% (N= 21) of the retail stores had been operated for between 1 and 3 years while 16.7% (N=13) had been operated for between 4 and 6 years. The rest of the respondents, 56.4% (N=44) had operated for the longest period of over 7 years.

Descriptive Statistics

The researcher first analysed the data descriptively in order to describe the general central tendencies of the responses concerning the study variables. The questionnaire was designed to have 5-point Likert scale measurement which is a measurement with five response categories ranging from “Strongly disagree” (1) to “Strongly agree” (5) which requires the respondents to indicate a degree of agreement or disagreement with each of a series of statements related to explanatory variables. The information is presented in the sub-sections below.

Vendor Managed Inventory System

The objective of the study was to establish the effect of Vendor Managed Inventory System on performance of retail outlets in Migori County. The descriptive statistics for Vendor Managed Inventory System based on the responses received is shown in Table 3 below.

Table 3; Descriptive Statistics on Vendor Managed Inventory System

Statement	N	Min	Max	Mean	Std. Dev
VIMS 1: We use the vendor-managed inventory system in our orders	78	2	4	3.54	0.954
VIMS 2: The VIM system helps in reducing order time the ordering time	78	2	4	3.29	0.973
VIMS 3: The scan-based system is helpful in our organization	78	2	4	3.48	0.890
VIMS 4: The VIM system is efficient as it helps in reducing waste in our organization	78	4	5	4.10	0.301
VIMS 5: Our organization sees to collaborate with all suppliers on the VIM system	78	4	5	4.01	.598
VIMS 6: The VIM system is essential for organizations.	78	2	4	3.19	0.971
Weighted Average				3.68	.879

Descriptive results in Table 3 show that there is use the vendor-managed inventory system in our orders (M= 3.54, S.D = 0.954), that the respondents neither agreed nor disagreed that the VIM system helps in reducing the ordering time (M= 3.29, S.D = 0.973), and that they agreed on the issue that the scan-based system is helpful in their organization (M= 3.48, S.D.=0.890). On the other hand, the respondents agreed on both issues that the VIM system is efficient as it helps in reducing waste in their organizationand that the organizations seek to collaborate with all suppliers on the VIM system (M= 4.10, S.D. = 0.301 for both).

The weighted average of 3.68 (S.D. =0.879) shows that the respondents generally agree that there are Vendor Managed Inventory Systemin issues of Inventory Management Practices in the retail outlets in Migori County. The findings are in line with the findings of Romano (2011) that the use of vendor-managed inventory management approaches are facing increased levels of popularity; the researcher also showed that vendor-managed inventory systems are experiencing increased usability among organizations. it is concluded that control activities are an important factor in increasing performance of retail outlets in the organizations. The

result revealed that the application of Vendor Managed Inventory System significantly affects the level of procurement practices of retail outlets.

Descriptive Statistics for Performance of Retail Outlets

The study’s dependent variable was performance of retail outlets. The results are presented in table 4.

Statement	N	Min	Max	Mean	Std. Dev
PRF 1: The procurement function in my organization is efficient	78	2	3	2.97	0.194
PRF 2: We have reduced costs in procurement in our organization	78	1	4	2.72	0.626
PRF 3: The procurement function has reduced ordering time	78	2	3	1.59	0.431
PRF 4: Our customers are satisfied because our procurement system is effective	78	2	4	1.53	0.567
PRF 5: The procurement system in our organization has helped in improving profitability	78	1	3	1.94	0.797
Weighted Average				2.42	0.831

Table 4 shows that performance of retail outlets in the retail outlets in Migori County is very low. This is shown by the weighted average mean of 2.42 which indicates that the respondents generally disagree that there is performance of retail outlets in the retail outlets in Migori County. Out of the five indicators of performance of retail outlets, the respondents generally disapproved the fact that their customers are satisfied because our procurement system is effective (M = 1.53, SD = 0.567). The findings are in line with the report from (KNBS, 2012) which shows that performance of retail outlets in Kenya is very poor. it is therefore concluded that control activities practices are enhanced by following the recommended control models in the retail outlets in Migori County in order to ensure that performance of retail outlets is enhanced.

Correlation Analysis

Correlation analysis shows the direction, strength and significance of the relationships among the variables of study (Sekaran, 2000). To establish whether there was a relationship between the variables, a correlation analysis was conducted. The correlation analysis shows the direction, strength, and significance of the relationships among the variables of the study. A positive correlation indicates that as one variable increases, the other variables will also increase. On the other hand, a positive correlation indicates that as one variable increases the other variable increases (Sekaran, 2003).

Table 5: Correlation between Study Variables

	Y	X ₁	X ₂	X ₃	X ₄
Y	1				
X ₁	0.769***	1			

Note: * p < 0.10, ** p < 0.05, *** p < 0.01

Table From the results in Table 5, several conclusions can be drawn. First, it has been indicated that Vendor Managed Inventory System (X_I) is positively and significantly correlated with performance of retail outlets in Migori County. This is indicated by the correlation coefficient of 0.769 that is significant ($p < 0.01$). This implies that there is a strong and significant positive association between Vendor Managed Inventory System and performance of retail outlets in the retail outlets in Migori County implying that Vendor Managed Inventory System leads to an increase in the performance of retail outlets in the retail outlets in Migori County.

Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	
1	(Constant)	0.320	0.146	2.192	.000
	X_I	0.270	0.061	0.264	4.426 .007

From Table 5 above, several inferences can be derived. The constant term in the regression equation of 0.320 indicates the level of performance of retail outlets that is in existence in the retail outlets in Migori County.

Vendor Managed Inventory System and Performance of Retail Outlets

On the regression between Inventory Management Practices and performance of retail outlets, the objective was to evaluate the effect of Vendor Managed Inventory System on performance of retail outlets at Migori County. Table 5 shows that Vendor Managed Inventory System has a positive significant effect ($\beta = 0.270, p = 0.007$) on performance of retail outlets of the organization. This implies that holding all factors constant, a unit increase in Vendor Managed Inventory System practices leads to a 27.0% significant increase in performance of retail outlets at Migori County. These results disagree with those of Ebimobowei (2016) who examined the effect of Vendor Managed Inventory Systemskills in fraud detection in twenty-four banks in Port Harcourt, the capital of Rivers State. The result revealed that the application of Vendor Managed Inventory Systemsignificantly affects the level of procurement practices of retail outlets. The study however agrees with that conducted in the Far East by Islam, Rahman and Hossan (2011) who in their study established that Inventory Management Practices skills has a big impact in combating fraud and corruption in Bangladesh hence reducing the performance of retail outlets.

Summary of Findings

Regression results from the analysis based on the first objective show that control activities has a positive significant effect on performance of retail outlets of the retail outlets in Migori County. This implies that holding all factors constant, a unit increase in control activities leads to a significant increase in performance of retail outlets of the retail outlets in Migori County.

Based on findings for the objective, VMI, which showed that control activities have a positive significant effect on performance of retail outlets hence implying that holding all factors constant, a unit increase in control

activities leads to a significant increase in performance of retail outlets, it is concluded that control activities is an important factor in increasing performance of retail outlets in the organizations.

References

- Ambe, I. M. (2012). *Determining an Optimal Supply Chain Strategy*. *Journal of Transport and Supply Chain Management*, 6 (1), 126-147.
- Ang'ana, B. O. (2012). *Determinants of effective supply chain management performance in road construction projects in Kenya (Masters thesis)* Retrieved from URI: <http://irlibrary.ku.ac.ke/handle/123456789/12474>
- Awino, Z. B. (2015). *Organizational Structure and Performance of Large Manufacturing Firms in Kenya: An Empirical Investigation*. *Journal of Business and Economics*, 6 (11), 1883-1891.
- Bozarth, C. C., Handfield, R. B., & Weiss, H. J. (2008). *Introduction to operations and supply chain management*. Upper Saddle River, NJ: Pearson Prentice Hall.
- Chambers, D., Lacey, N. (2011). *Modern Corporate Finance, Sixth Edition*, Michigan: Hayden McNeil Publishing.
- Chen, H., Frank, M. Z., & Wu, Q. W. (2007). *What actual happened to the inventories of American companies between 1981 and 2000? Management sciences*, 51, 1051- 1031.
- Chimwani, B.I., Iravo, M.A., & Tirimba, O.I. (2014). *Factors Influencing Procurement Performance in the Kenyan Public Sector: Case Study of the State Law Office*. *International Journal of Innovation and Applied Studies*,9 (4), 1626-1650.
- Christopher, M. (2005). *Logistics & Supply Chain Management*. (3rd ed.). London: Prentice Hall / Financial Times.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Draugalis, J.R., Coons, S.J., & Plaza C.M. (2008). *Best practices for survey research reports: A synopsis for authors and reviewers*. *Am J Pharm Educ.*; 72: Article 11.
- Eroglu, C., & Hofer, C. (2011). *Lean, leaner, too lean? The inventory-performance link revisited*. *Journal of Operations Management*, (29), 356–369
- Green, K.W. Jr & Inman, R.A. (2005), "Using a just-in-time selling strategy to strengthen supply chain linkages", *International Journal of Production Research*, 43(16). 3437-3453.
- Ideet, I. L., & Wanyoike, D. (2012). *Role of Buyer-Supplier Relationship on Supply Chain Performance in the Energy Sector in Kenya: A Survey of Kenya Power and Geothermal Development Companies*.
- Jooste C, Kim V., & Roberts-Lombard M (2015), "Reinter mediation Strategies For Disinter mediated Travel Agencies: A Strategic Marketing Perspective", *International Business & Economics Research Journal*, 14 (3).
- Kanda, M. K. & Iravo M. A. (2015). *Access Factors Affecting Supply Chain Efficiency of Medical Supplies in public Health Centres in Kenya: A Case Study of Public Health Centres in Elgeyo Marakwet Count*.

- International Journal of Academic Research in Accounting, Finance and Management Sciences*, 5 (2), 32–41.
- Karimi, E. & Rafiee, M. (2014). *Analyzing the Impact of Supply Chain Management Practices on Organizational Performance through Competitive Priorities (Case Study: Iran Pumps Company)*.
- Kariuki, A., Murimi, C. (2015). *Employee empowerment and organizational performance of Tata Chemical Magadi Ltd, Kenya. European Journal of Business and Management*, 7(8), 190- 200.
- Kitheka, S.S., & Ondiek, G.O. (2014). *Inventory Management Automation and the Performance of Supermarkets in Western Kenya. International Journal of Research in Management & Business Studies*, 1 (4.), 9-18.
- Kitonga, D.M., Bichanga, W.O., & Muema, B.K. (2016). *The Role of Determining Strategic Direction on Not-For-Profit Organizational Performance in Nairobi County in Kenya. International Journal of Scientific & Technology Research* 5(5), 28-32
- Mbalwa, P.N., Kombo, H., Chepkoech, L., Koech, S., & Shavulimo, P.M. (2014). *Effect of Corporate Governance on Performance of Sugar Manufacturing Firms in Kenya: A Case of Sugar Manufacturing Firms in Western Kenya. IOSR Journal of Business and Management*, 16 (11), 86-112.
- Mogere, K., Oloko, M. & Okibo, W. (2013). *Effect of Inventory management practices on Operational Performance of Tea Processing Firms: A Case Study of Gianchore Tea Factory, Nyamira County, Kenya. The International Journal of Business & Management*, 1 (5), 12-27.
- Mukopi, C.M., & Iravo, A.M. (2015). *An Analysis of the Effects of Inventory Management on the Performance of the Procurement Function of Sugar Manufacturing Companies in the Western Kenya Sugar Belt. International Journal of Scientific and Research Publications*, 5(5), 2-14.
- Muma, B. O., Nyaoga, B. R., Matwere, B. R. & Nyambega, E. K. (2014). *Green Supply Chain Management and Environmental Performance among Tea Processing Firms in Kericho County, Kenya. International Journal of Economics, Finance and Management Science* 2(5) 270-276.
- Muthini, J. N., Namusonge, G.S., Guyo W. & Shale N.I (2017) *Role of Government Economic Regulations on Petroleum Supply Chain Management*, 131-139.
- Mwangi, A.G. (2013). *Inventory Management and Supply Chain Performance of Non Governmental Organizations in the Agricultural Sector, Kenya. Master's Thesis Presented to University of Nairobi.*
- Onchoke, B. N., & Wanyoike, D. M. (2016). *Influence of Inventory Control Practices on Procurement Performance of Agrochemicals Distributors in Nakuru Central Sub-County, Kenya. International Journal of Economics, Finance and Management Sciences*, 4 (3), 117- 126.
- Osoro, A., Muturi, W.M., & Ngugi, P.K. (2016). *Determinant Affecting Performance of Supply Chain Systems in the Petroleum Industries in Kenya. European Journal of Logistics Purchasing and Supply Chain Management*, 4(4), 44-63.
- Seghete, U.G. (2016). *Factors Affecting the Performance of Supply Chain Financing In Kenya: A Case Study of Commercial Bank of Africa, Kenya. Master's Thesis Presented to United States International University – Africa.*

- Shisia, A., Sang, W., Matoke, J., & Omwario, B. N. (2014). Strategic Innovation and Performance of Public Universities in Kenya. European Journal of Business and Management, 6(23), 259-269.*
- Silvestro, R., & Lustrato P. (2014). Integrating financial and physical supply chains: the role of banks in enabling supply chain integration. International Journal of Operations & Production Management Jarrett, 34(3), 298-324.*
- Wabwile, L.N., & Namusonge, G. S. (2015). Determinants of Outsourcing as a Competitive Strategy in Supply Chain Management of Manufacturing Companies in Kenya. A Case Study of East African Breweries Limited. International Journal of Academic Research in Business and Social Sciences, 5(5)190-202.*
- Waithaka, S.T., Mburu, T.M., Koror, J., & Muathe, S. (2012). Environmental Factors that influence Supply Chain Management Implementation in the Manufacturing Industries in Kenya: A Case of Manufacturing Industries in Nairobi, Kenya. ABC Journal of Advanced Research, 1 (2), 1-8.*
- Wangari, K.L., Kagiri, A.W. (2015). Influence of Inventory Management Practices on Organizational Competitiveness: A Case of Safaricom Kenya Ltd. International Academic Journal of Procurement and Supply Chain Management, 1(5), 72-98.*