

# **Influence of customer relationship management on performance of manufacturing firms in Kenya**

Fatuma Ali Rajab

Post Graduate Student: Jomo Kenyatta University of Agriculture and Technology

Author's E-mail: alifatuma6@gmail.com

Dr. Patrick Karanja Ngugi

Lecturer: Jomo Kenyatta University of Agriculture and Technology

Dr. David Mburu Kiarie

Lecturer: Jomo Kenyatta University of Agriculture and Technology

## ***Abstract***

***Purpose:*** The study sought to determine the influence of customer relationship management on performance of manufacturing firms in Kenya.

***Methodology:*** This study employed descriptive research design. The targeted population of this study is comprised of 499 manufacturing companies which are all located in Nairobi and its environs. In order to come up with a representative sample, stratified random sampling method was used since the population is heterogeneous. The stratified technique ensured that each sector in the target population has an equal chance of being selected. There were 217 respondents sampled from the 499 manufacturing firms out of 217, 180 respondents returned the questionnaires for analysis. The study adopted a descriptive survey design. Data was collected using self-administered questionnaires which were tested for validity and reliability using 10% of the total sample respondents. Quantitative data was analyzed using both descriptive and inferential statistics and with the help of SPSS version 23 while qualitative data was analyzed descriptively. Linear and multiple regression models were used to show the relationship between the dependent variable and the independent variables. The information was presented using tables, charts, frequencies, percentages and graphs.

***Findings:*** The study established that there exists a positive influence of customer relations management on performance management of manufacturing firms in Kenya at 5% level of significant ( $\beta=0.595$ ,  $P<0.05$ ). This indicates that as customer relationship management increases to certain level then performance of manufacturing firms in Kenya also increases significantly and vice-versa

***Unique contribution to theory, practice and policy:*** The study has proved that indeed customer relationship management as a strategic alliance influences performance in these organizations. In addition, the study is of benefit to the government of Kenya who should create awareness of their policies through training of the key stakeholders for this organizations since the majority of the respondents indicated that the government policies and strategies are ineffective. Customer relationship management had significant effect on organization performance and this requires that to improve on quality production and lead time, manufacturing firms must also improve their customer relationship management. Since the quality of the products has not significantly improved for the last 5 years, more strategies must be put in place to incorporate technology which will aid to improve the quality and also maintain required lead time in these

*organizations. Other researches and scholars may want to build on this study and explore other areas of interest that were not covered in this work*

**Keywords:** *customer relationship management, performance and manufacturing firms.*

## 1. INTRODUCTION

The manufacturing sector in Kenya is believed to be the third largest industrial sector after transport, communication and agriculture (KPMG, 2014). It is the third top sector contributing to gross domestic product in Kenya. The manufacturing sector is made up of only 10% of the industrial sector benefaction even though Kenya is said to be the most highly industrially developed country in East Africa (RoK, 2014). According to the US Department of State, this exposes a gap in the country's ability to achieve a fully industrialized economy by 2020. It argues that there is still a lot of room for development in countries manufacturing sector, but for this to happen, reforms to the business environment need to be made to factor in the influence of strategic alliances in supply chain in the sector (KPMG, 2014). The manufacturing sector has a great potential on promoting economic growth and competitiveness in the country like Kenya.

Business environment has become complex and requires flexible operations, firms have become more susceptible to supply chain disruptions and (Wieland & Wallenburg, 2013). Jüttner and Maklan, (2011) argue that supply chain resilience, which decreases the impact of supply chain risks by actively pointing out on strategies that enable supply chains to respond and recover to their original state or an even better condition is very vital to many firms survival. Firms are now actively involved in forming supply chain strategies so as to develop new and improved processes, practices and strategies according Peter *et al.*, (2017). Literature shows that there are many benefits of forming strategic alliances but despite those benefits, many organizations have not entered into formal alliances because they lack adequate knowledge of what strategic alliance entails and its impact on the performance of their (Ramanathan *et al.*, 2011).

According to NAM (2015), USA's 12% GDP is accounted for by its manufacturing sector, while it employs about 9% of countries workforce, every dollar spent in manufacturing adds \$1.37 to the US economy, and every 100 jobs in a manufacturing facility creates an additional 250 jobs in other sectors. USA's manufacturing output growth has over the years outperformed that of most European countries and Japan, however, it has continued to lag behind that of China, Korea and other Asian countries (Levinson, 2015).

In most of Africa, performance of manufacturing has been particularly poor over the decades compared to that of developing countries (WB, 2014). According to a report by ODI (2016), Kenyan manufacturing sector is growing slower at the rate of 7% than those in Ethiopia at 24%, Rwanda 35% Tanzania 25% and Uganda 22%. Governments in East African Countries seem to be putting more pronounced effort into building manufacturing through creation of industrial parks like Ethiopia and making land available for manufacturing and particularly labor-intensive manufacturing (ODI, 2016). Ethiopia's manufacturing sector responsibility in the nation's economic development has been increasing year after year according to the Ethiopia Economic Association (EEA) (EEA, 2011). At present, the government seems to have given increased attention to the industrial sector, especially to manufacturing, as it is expected to take the lead in the economy as of the year 2014/15 (EEA, 2011).

In Kenya, competitive pressures are forcing manufacturing companies to continuously seek new ways to manage their production capabilities more effectively in order to meet the demands of the market. The manufacturing industry in Kenya contributes 14% to the country's gross domestic product and employs over two million people (Republic of Kenya (RoK), 2013). However, this sphere has seen a decline in its contribution to GDP from 13.6 percent in the early 1990's to 9.2 percent in 2012. According to KNBS, (2016), the manufacturing sector in Kenya has been growing at 3.5% and 3.2% in 2014 and giving about 10.3% of the GDP. The third largest economic sector after agriculture, transport and communication was found to be manufacturing sector (KPMG, 2014), with building and construction, mining and quarrying cumulatively contributing the remaining 30% (KAM, 2016). The decline trend calls for better ways of doing business within the sector. The adoption and implementation of Strategic Alliances on the supply chain is seen as a way of reducing manufacturing costs and also distributions cost. This in turn enhances the performance of the manufacturing sector. This study focusses on manufacturing sector; reason being it has been performing minimally at 10% in the last decade.

### 1.1 Strategic Alliances in Supply chain

Strategic alliance is viewed as an open relationship which is based on reciprocal need between autonomous organization so as to achieve mutually determine and individual objectives, where decisions are made together and risks and benefits, knowledge and resources are shared (Cao & Zhang, 2011). These alliances also entail sharing of information, dedicating investment, making joint decisions, and aligning incentives (Nyaga *et al.*, 2010). The perspective of collaborative advantage enables supply chain partners to view strategic alliances as a positive venture rather than a risky one, and therefore partners endeavour to gain favourably and gain competitive advantages (Evelyn *et al.*, 2017). According to Latour (2001), in 2000, a fire destroyed the entire production capacity of a plant of Phillips Electronics in Albuquerque, which was a sub supplier of the Scandinavian cell phone maker of Nokia and Ericsson. Zhu *et al.*, (2016) added that Nokia decided to enter an alliance with Phillips to chip its chip orders to other Phillip plants so as to use their extra capacity whereas Ericsson who did nothing incurred a loss of \$400 million.

This shows that the changes of the focal firm strategy can be attributed to formation of strategic alliances. This formation of strategic alliances encourages information sharing, joint decision making and resource sharing (Lavie, 2006). These actions in return will benefit the firms to acquire and retain customers faster (Wei *et al.*, 2012) as well as focal firm's financial performance (Cao & Zhang, 2011). BAT Kenya strives for the development of people capabilities through continuous training. In 2016, BAT formed an alliance with its distribution partners ran training programs named POSITIVE to equip its distribution partners with skills to operate in challenging environment (BAT Kenya, 2016). This paper focuses on the strategic alliance practices specifically customer relationship management and its role of as a driver for firm performance

### 1.2 Statement of the Problem

Economic Review 2014 indicated that the manufacturing sector in Kenya contributes 10 percent of the Gross Domestic Product (GDP). The Government of Kenya views the manufacturing firms as the key pillar of its growth strategy. The sector is expected to play a key part in the advancement of the Kenyan economy by contributing 20 percent of Gross Domestic Product (GDP). The manufacturing sector has however not yet achieved 20 percent of the GDP as stipulated in the Kenya Vision 2030 (Waiganjo, 2013). The manufacturing sector's contribution

to GDP has remained at an average of 10 percent for more than ten years (KNBS, 2015). For example, KAM, (2012); KNBS, (2013) revealed that the manufacturing sector contribution to GDP worsened from 9.6 per cent in 2011 to 9.2 per cent in 2012, while the success rate deteriorated from 3.1 per cent in 2012 to 3.4 per cent in 2011.

According to the report from World Bank the manufacturing sector is the third largest contributor to GDP at 10.3% after transport and communication which stands at 11.3%, followed by agriculture and forestry at 23.4% (KNBS, 2016). Statistics point out that manufacturing firms in Kenya function at a technical efficiency of approximately 59% in relation to their counterparts in Malaysia that average approximately 74% (Odhiambo, 2015). This makes it hard to believe that the sector is capable of achieving the goals of Vision 2030 (Guyo, 2015). The manufacturing sphere contribution to GDP has lagged at 10% for more than a decade with a growth of 3.1%, significantly lower than the overall economic growth of 5% (World Bank, 2016). Kenyan exports to the EAC have been declining, Manufacturers through KAM can partner with institutions such as Trade Mark East Africa, which works to increase access to EAC markets (Achuka, 2016).

Further statistics from the Kenya Association of Manufacturers have shown that certain manufactures implied that they were to close shop and move their businesses to other low-cost countries like Egypt because of low profits (KAM, 2014). Manufacturing firm achievements in Africa has been particularly poor over the last decade (WB, 2014). Kenya's share of manufacturing exports to global market is about 0.02%, and whereas this compares favourably with neighbouring countries like Uganda and Tanzania, the performance is very low compared to countries like South Africa, Singapore, China and Malaysia (WB, 2015). Creation of strategic alliances along the supply chain can be the way in which firms in Kenya improve on performance.

### 1.3 Objective of the Study

The main objective of this study was to determine the influence of customer relationship management on performance of manufacturing firms in Kenya.

## 2. LITERATURE REVIEW

### 2.1 Theoretical Review

#### 2.1.1 The Social Exchange Theory

Social exchange theory is used to reproduce the results of procedural and distributive justice in supply chain relationships. This study used Social Exchange Theory to determine the influence of customer relationship on the performance of manufacturing firms in Kenya. Social exchange theory is based on the concept of individuals or groups interacting due to the expectation of rewards and the avoidance of penalties or punishment (Emerson, 1987; Bandura, 1986). Increased competition has focused attention on the development of policies to build effective on-going relationships with customers and managing those alliances (Hult, 1998). A basic tenet of supply chain management is that on-going relationships among supply chain members and especially with customers increases efficiency and effectiveness (Choi and Hartley, 1996; Shin *et al.*, 2000).

The advantage of taking a social exchange perspective is due to the fact that customer relationship management has a strong impact on supply chain processes, alliances and firm

performance (Srinivasan *et al.*, 2011). Social Exchange Theory is composed of a series of propositions outlining the system of social exchange. A fundamental proposition of this theory is that for all actions taken, if an action is rewarded, more likely a member to an exchange is to perform that action again (Wu *et al.*, 2014). Social exchange theory argues that individuals or groups adept to form contact with others for the expectation of a reward (Yang *et al.*, 2008). Based on the social exchange theory a business network may be seen as a type of exchange network (Blakenburg & Johanson, 1992), and can be defined as a set of interconnected exchange relationships (Prenekert & Hallen, 2006).

SET assumes that attitudes and behaviors can be assessed by the rewards of interaction minus the cost of that interaction. Empirical studies argue that high procurement performance can be obtained if there is close understanding and trustworthy collaboration between the supply chain partners such as suppliers, customers and manufacturers (Narasimhan *et al.*, 2009; Wu *et al.*, 2014). Chetty and Eriksson, (2001) argue that the main focus of such a system is on the transformation and exchanges of resources, and less on the social exchange component. It is from this perspective that buyer-supplier networks sometimes referred to as supply networks are most frequently analyzed. Claro (2004) also emphasizes how business networks; supply chains networks and buyer-supplier relationships are all types of business relationships ranging from a web of connections to a dyadic relationship with often blurred boundaries.

Hausman, (2010) in his study argues that committed customer relationship and commitment to core concepts in various transactions between the company and its partners are considered to improve the supply chain performance of a firm. Social Exchange Theory can be well used for explaining supply chain management practices and especially formation of alliances with customers and the influence it has on the performance of an organization. Adopting a social exchange perspective, a consumer makes a contribution to its manufacturer through their partnerships and helps in reaping the benefits of quality and affordable products (Eriksson, 2001). Therefore, Social Exchange Theory was beneficial in explaining the influence of customer relationship management and performance of manufacturing firms.

## 2.2 Conceptual Framework

Orodho (2012) defines a conceptual framework as a road map that the study intends to follow with the aim of looking for answers to the problems raised by the research questions. According to Kothari (2011), a variable is a measurable characteristic that assumes different quantitative values among the subjects. Linked to the statement of the problem, conceptual framework creates the base for presentation of the specific research question that steer the analysis being reported (Shields & Rangarjan, 2013). The conceptual framework below shows the diagrammatic representation of the relationship between customer relationship management and firm's performance.

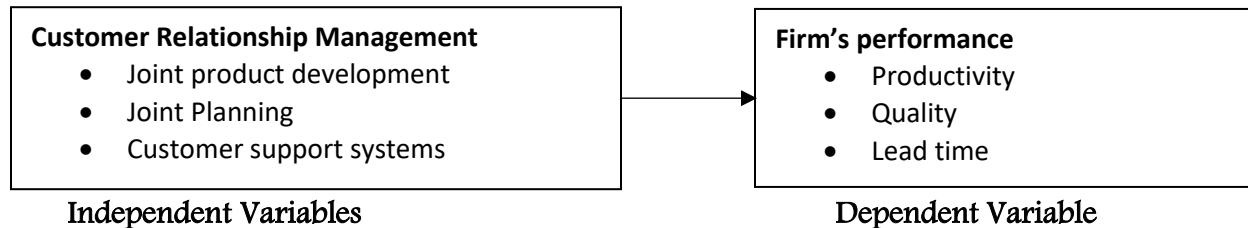


Figure 1: Conceptual Framework

## 2.3 Empirical Review

### 2.3.1 Customer Relationship Management and performance of manufacturing firms

Mohammad and Nicolette, (2016) in their study on knowledge integration with customers in collaborative product development projects found that the customer's knowledge contribution is aligned with the specific requirements of each phase of the product development. Three specific customer roles are identified and connected to the customer's knowledge contribution. The capability of customers and the degree of initiative of the product development project are affecting the prerequisites for knowledge integration with customers. Michael and Jürgen (2012) found that customer integration was important in-service provision process so as to enhance the operations of the firm and to meet the customer's needs adequately. They argued that customer integration should be included in the operations of a firm by first identifying the type of customer integration need and how much integration. The firm also has to identify the impact of integration and the mechanism that will be used to measure the integration.

Roya and Metin (2017) in their study on customer relationship management, they discovered that managing customers can bring many benefits to the hotel business, though there are some associated challenges. Such challenges often bring a significant risk of failure, and these risks become more significant in budget hotels. The study considered the changes that have emerged in the last decade as regards customer expectations when staying in budget hotels. The study used qualitative approaches to investigate the overlaps between customer expectations and managers' perceptions of CRM applications. The findings revealed that regardless of all changes, value for money and core products continue to play a critical role in customers' overall satisfaction with budget hotels.

Gharakhani et al. (2012) argued that good customer relation has a positive impact in the entire supply chain. Customer relationship management implies that all the customer needs are met by having all right goods, in the right condition and at the right time for customers (Sundram et al., 2011). This will enable a firm to gain new customers and retain them, the firm will also be able to respond quickly to customer demands and meet customer expectations (Gawankar et al., 2013). Customer relationship management considers customer opinions and involves them in the production process through methods that facilitate the relationship between the customer and the manufacturer or provider (Lotfi et al., 2013).

## 2.4 Research Gaps

There is limited literature on the position of strategic alliance, not much has been researched on the strategic alliances in the past. There is neither adequate literature on future of strategic alliances as it pertains to the performance of organizations. This calls for research so as to provide direction and insight and fill the literature gap in strategic alliances in supply chains and their effect on organizational performance, whether real or simply perceived. This will provide guidance on what form and degree of alliance to make (Ralston et al. 2017). Hassan et al. (2015) investigated measurement for strategic alliance and organizational performance of manufacturing firms. The study concluded that strategic alliance has a positive impact on organizational performance. However, this study was conducted in Malaysia manufacturing firms and not the Kenyan manufacturing firms. Likewise, this study discussed only three strategic alliances practices not including channel alignment and supply chain partnering. As reflected by the presented theoretical and empirical literature there is an inadequacy of research done on strategic alliance and performance of manufacturing firms. This proposed study was unique in



that it adopted an integrative approach that captured not only manufacturing firms in Kenya but also the core four factors in successful implementation of customer relationship management through customer support systems. It is therefore a more comprehensive and integrative study that has not been the focus of researchers.

### 3. METHODOLOGY

This study, based on the Positivism research philosophy, employed descriptive research design. The targeted population of this study is comprised of 499 manufacturing companies which are all located in Nairobi and its environs. In order to come up with a representative sample, stratified random sampling method was used since the population is heterogeneous. The stratified technique ensured that each sector in the target population has an equal chance of being selected. There were 217 respondents sampled from the 499 manufacturing firms out of 217,180 respondents returned the questionnaires for analysis. The study adopted a descriptive survey design. Data was collected using self-administered questionnaires which were tested for validity and reliability using 10% of the total sample respondents. Quantitative data was analyzed using both descriptive and inferential statistics and with the help of SPSS version 23 while qualitative data was analyzed descriptively. Linear and multiple regression models were used to show the relationship between the dependent variable and the independent variables. The information was presented using tables, charts, frequencies, percentages and graphs.

### 4. DATA ANALYSIS AND PRESENTATION

#### 4.1 Introduction

This chapter presents results arising from the analysis of data collected using questionnaires.

#### 4.2 Pilot results

The cronbach's alpha was computed in terms of the average inter-correlations among the items measuring The respondents that were piloted were not included in the main study. The pilot results for 18 participants were distributed as per the organization in the table 1 and 2 below.

#### 4.3.1 Reliability study tool

Reliability analysis was done to evaluate survey construct using Cronbach's alpha. The table 1 shows the reliability results for the pilot study.

**Table 1: Reliability**

Variables	Cronbach's Alpha	Number of Items	Conclusion
Customer Relationship Management	0.768	9	Reliable
Performance	0.788	3	Reliable

From table 1, the pilot results proved that the variable statements were highly reliable with Cronbach's Alpha for the results being 0.768 and 0.788 for Customer Relationship Management and organization performance respectively. Sekaran and Bougie (2013) stated that coefficient greater than or equal to 0.7 is acceptable for basic research. Bagozzi (1991) explains that reliability can be seen from two sides: reliability (the extent of accuracy) and unreliability (the extent of inaccuracy). The most common reliability coefficient is Cronbach's alpha which

estimates internal consistency by determining how all items on a test relate to all other items and to the total test- internal coherence of data. The reliability is expressed as a coefficient between 0 and 1.00. The higher the coefficient, the more reliable is the test.

### 4.3.2 Test for Construct Validity

The test for construct validity for the study is the Kaiser-Meyer-Olkin (KMO) test for construct validity which according to Field (2005), KMO Value/Degree of Common Variance of between 0.90 to 1.00 is “Marvelous”, 0.80 to 0.89 is “Meritorious”, 0.70 to 0.79 is “Middling” 0.60 to 0.69 is “Mediocre”, 0.50 to 0.59 is “Miserable”, 0.00 to 0.49 is “Don't Factor”. Thus, a KMO coefficient of above 0.800 is “Marvelous” for the study and were evaluated as per Table 2 which indicate the KMO and Bartlett’s test of construct validity for each of the dependent and independent variables.

**Table 2: Factorial Test Results for Construct Validity**

	KMO	Bartlett's Test of Sphericity			Validity
		Approx. Chi-Square	df	Sig.	
Customer Relationship Management	0.594	39.625	36	0.011	Valid
Performance	0.666	16.403	3	0.001	Valid

From table 2 the values of the KMO Measure of Sampling Adequacy for all the variables were above 0.500. The significance of the KMO coefficient was evaluated using a Chi-Square test and a critical probability value (p-value) of 0.05. A Chi-Square coefficient of 16.403 and 39.625 and a p-value of < 0.05 imply that the coefficients were significant. The result further implies that there was a significant correlation between Customer Relationship Management and organization performance of the firms.

## 4.3 Customer relation Management and Performance

### 4.3.1 Descriptive Statistics for Customer relation Management

Respondents were required to rank the customer relationship management indicators in order of preference by ranking the performance of the indicator as Least Preferred =1, Moderately Preferred =2, Neutral =3, Preferred =4 and strongly Preferred =5. The results were analyzed and displayed in table 4.8

**Table 3: Descriptive Statistics**

Indicators	N	Mean	Std. Deviation
Joint Product Development	180	3.64	1.240
Joint Planning	180	3.52	1.235
Customer Support Systems	180	3.89	1.133

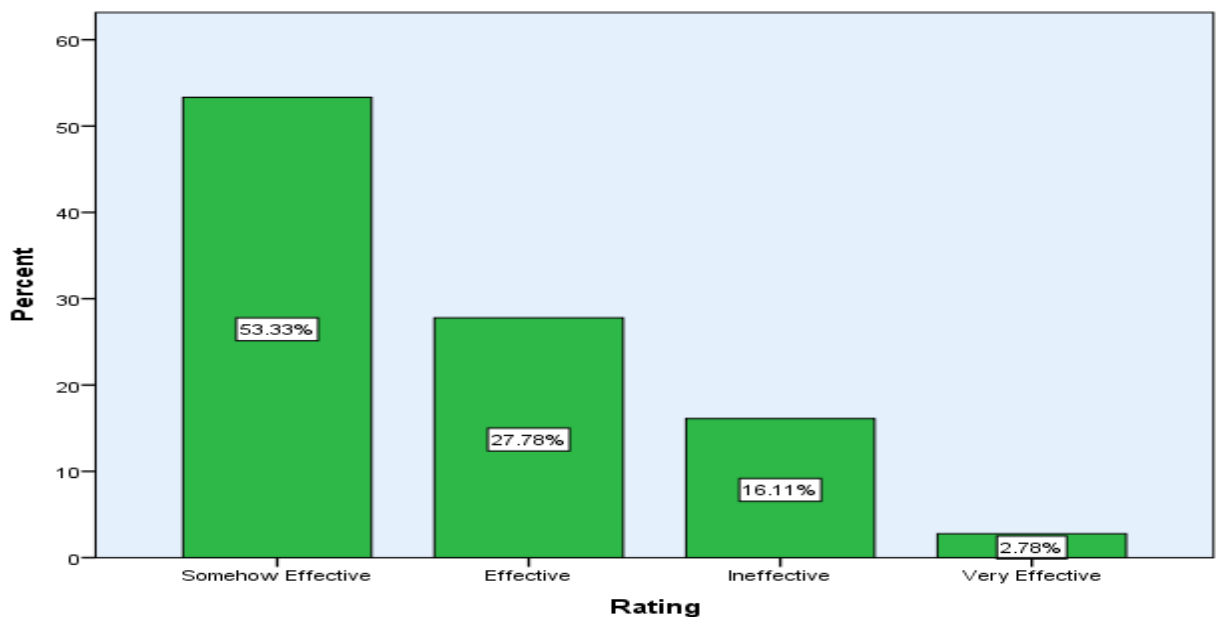
From table 3, respondents ranked joint product development for customer relation management with (mean=3.64≈4, SD=1.240), this indicates that majority of the respondents rated the indicator as preferred for customer relation management. It had a small standard deviation which indicates that majority had a common rating on joint product development as preferred for customer relation management. On joint planning had (mean=3.52≈4, SD=1.235), this indicates that majority of the respondents rated the indicator as preferred for customer relation management. It had a small standard deviation which indicates that majority had a common



rating on joint planning as preferred performance for customer relation management. On customer support systems had (mean=3.89≈4, SD=1.133), this indicates that majority of the respondents rated the indicator as preferred for customer relation management. It had a small standard deviation which indicates that majority had a common rating customer support systems as preferred performance for customer relation management. Both of the indicators for customer relationship management were rated preferred indicators in these organizations, this is in line with the study by (Tarafdar & Qrunfleh (2017). which fund out that interaction with customers and involving them product development, planning, processing customer feedback and managing customers' complaints improves customer relationship management in an organization. It also enables organizations to develop customized products (Li *et al.* 2005), thus addressing the attribute of flexibility and enables tracking of and addressing changes in customer demand preferences and trends, thus addressing the attribute of responsiveness (Vickery *et al.* 2010).

#### 4.3.2 Implementation of Customer relationship management system in your organization

Respondents were asked to state how effective customer relationship management system is implemented in their organization and they respondent as shown in figure 1.



**Figure 1: Implementation of Customer relationship management system**

From figure 1, majority of the respondents about 53.33% indicated that the implementation of customer relationship management system is somehow effective, 27.78% indicated that implementation was effectively done, 16.11% indicates that it was infective and only 2.78% indicated that the Implementation of Customer relationship management system was very effective in their organizations.

### 4.3.3 Customer Relationship Management process

Respondents were required to rank the customer relationship management process in order of preference by their performance as Strongly Disagree =1, Disagree =2, Neutral =3, Agree =4 and Strongly Agree =5. The results were analyzed and displayed in table 4.

**Table 4: Descriptive Statistics of Customer Relationship Management process**

	N	Mean	Std. Deviation
Joint Planning is very key in improving Productivity	180	4.16	.783
Joint Planning is very crucial in improving quality	180	4.13	1.085
Joint Product Development is very paramount in improving quality	180	4.11	1.128
Customer support systems are vital for maintaining quality	180	3.96	1.207
Customer Support systems play a significant role in improving productivity	180	3.93	1.153
Joint Product Development is very crucial in increasing Productivity	180	3.59	1.302

From table 4, respondents rated joint planning is very key in improving productivity with (mean=4.16 $\approx$ 4, SD=0.783), this indicates that majority of the respondents agreed that joint planning is very key in improving productivity. It had a very small standard deviation which indicates that majority had a common rating on joint planning is very key in improving Productivity. Joint planning is very crucial in improving quality had (mean=4.13 $\approx$ 4, SD=1.085), this indicates that majority of the respondents agreed that. Joint planning is very crucial in improving quality. It had a small standard deviation which indicates that majority had a common agreement joint planning is very crucial in improving quality. On joint product development is very paramount in improving quality had (mean=4.11 $\approx$ 4, SD=1.128), this indicates that majority of the respondents agreed that joint product development is very paramount in improving quality. It had a small standard deviation which indicates that majority had a common agreement that joint product development is very paramount in improving quality. On customer support systems are vital for maintaining quality had (mean=3.96 $\approx$ 4, SD=1.207), this indicates that majority of the respondents agreed that customer support systems are vital for maintaining quality. It had a small standard deviation which indicates that majority had a common agreement that customer support systems are vital for maintaining quality. On customer support systems play a significant role in improving productivity had (mean=3.93 $\approx$ 4, SD=1.153), this indicates that majority of the respondents agreed that customer support systems play a significant role in improving productivity. It had a small standard deviation which indicates that majority had a common agreement that customer support systems play a significant role in improving productivity. This is inline with the study by Miguel and Brito (2011) who argued that the main advantage of building long-term relationships with suppliers is to reduce the costs of transactions through trust and this increases supply of the manufactured products. Thus, for a firm to remain competitive then extensive understanding of the buyer-supplier relation is indispensable (Berkowitz, 2004). On joint product development is very crucial in increasing productivity had (mean=3.59 $\approx$ 4, SD=1.302), this indicates that majority of the respondents agreed that joint product development is very crucial in increasing

Productivity. It had a small standard deviation which indicates that majority had a common agreement that joint product development is very crucial in increasing productivity.

#### 4.4 Inferential Statistics

##### 4.4.1 Influence of customer relationship management on performance of manufacturing firms in Kenya

The analysis started by testing the equivalent researchable hypothesis on the customer relationship management on performance of manufacturing.

**H<sub>a</sub>:** Customer relationship management improves performance of manufacturing firms in Kenya.

Using Anova table the regression model with selection and recruitment as a predictor was not significant ( $F=99.19$ ,  $p$ - value =0.512) which shows that there is a significant influence of Customer relationship management on performance in of manufacturing firms in Kenya. This leads in failing to reject the researchable hypothesis as predicted that: Customer relationship management improves performance of manufacturing firms in Kenya. Thus, the customer relationship management improves performance in manufacturing firms. The objective is to boost the alliance between the organizations and their clients by controlling all activities related to customers including sales, service delivery, and support and after sales so as to discover and preserve the most valuable customers and revamp the less loyal or less profitable clients (Wang, 2012). This implies that the client's value is not only weighed from the transactions they make but from how they add to the overall survival of the organization (Ekinici et al., 2014).

**Table 5: ANOVA of Customer relationship management**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.978	1	14.978	99.19	0.512 <sup>b</sup>
	Residual	26.928	178	.151		
	Total	41.906	179			

a. Dependent Variable: Organization Performance

b. Predictors: (Constant), Customer Relations management

Based on the regression model and table 6 below, the coefficient of determination (R squared) of 0.357 shows that 35.7 % of the variation in performance management in manufacturing firms in Kenya can be explained by Customer Relations management. The adjusted R square of 0.353 depicts that all the Customer Relations management in exclusion of the constant variable explained the variation in performance management by 35.3% the remaining percentage can be explained by other factors excluded from the model. The R shows the correlation coefficient of the combined effects of mapping skills, an  $R = 0.598$  shows that there is a strong positive relationship between performance management and Customer Relations management. The standard error of estimate (0.413) shows the average deviation of the independent variables from the line of best fit is very small and thus a model to predict with less errors are achieved. This finding concurs with the study by Valmohammadi and Yousefpoor (2014) who points out

that CRM enables organizations to provide value added products and services through identifying most valuable customers, working on retaining them by providing quality services since they exist a strong relationship between CRM and performance management. The Anova results were displayed in table 5.

**Table 6: Model Summary Customer relationship management**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.598 <sup>a</sup>	.357	.353	.413

a. Predictors: (Constant), Customer Relations management

The study objective was to determine the influence of customer relationship management on performance of manufacturing firms in Kenya. Based on regression analysis, the model indicated a positive significant effect (coefficient) of ( $\beta = 0.595$  and  $p \text{ value} < 0.05$ ). This was shown in the equation below

$$\text{Organization Performance} = 1.556 + 0.595 * \text{Customer Relations management}$$

This indicates that as level of Customer Relations management increases also level of performance management increases in manufacturing firms. This finding was in line with the study by Zhao et al. (2008) that found out that as customer relationship management increases market information, operational effectiveness, product quality and feedback also increases (Danese & Romano, 2013). Thus, the benefits of increased loyalty are becoming better understood, customer satisfaction is increasingly becoming a more important corporate goal (Das *et al.*, 2010). The results were shown in the table 7 below.

**Table 7: Coefficient of Customer Relations management**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	1.556	.256		6.080	.014
1	Customer Relations management	.595	.064	.598	9.375	.002

a. Dependent Variable: Performance Management

## 5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1 Summary of the Findings

The objective of the study was to influence of customer relationship management on performance of manufacturing firms in Kenya. Based on regression analysis, the model indicated a positive significant effect (coefficient) of ( $\beta = 0.595$  and  $p \text{ value} < 0.05$ ). This indicates that as customer relationship management increases to certain level then performance of manufacturing firms in Kenya also increases significantly and vice-versa.

### 5.2 Conclusion

From the analysis of data, the study concluded based on the hypothesized relationship that:

H<sub>1</sub>: There is significant influence of customer relationship management that improves performance of manufacturing firms in Kenya.

### 5.3 Recommendations

The study has proved that indeed customer relationship management as a strategic alliance influences performance in these organizations. In addition, the study is of benefit to the government of Kenya who should create awareness of their policies through training of the key stakeholders for this organizations since the majority of the respondents 53.17% indicated that the government policies and strategies are ineffective. Customer relationship management had significant effect on organization performance and this requires that to improve on quality production and lead time, manufacturing firms must also improve their customer relationship management. Since the quality of the products has not significantly improved for the last 5 years, more strategies must be put in place to incorporate technology which will aid to improve the quality and also maintain required lead time in these organizations. Other researches and scholars may want to build on this study and explore other areas of interest that were not covered in this work.

### REFERENCES

- Achuka V. (2016), '*Bribes you have to pay 'to survive' in Kenya*', Africa Review, March 20.
- Arani, W., Mukulu, E., Waiganjo, E., Wambua, J., & Wambua, J. (2016). Strategic Sourcing an Antecedent of Supply Chain Resilience in Manufacturing Firms in Kenya. *International Journal of Academic Research in Business and Social Science*, 6(10), 1-18.
- Ashwood-Smith, P., Mohammadi, M. A. A., & Evelyne, R. O. C. H. (2017). *U.S. Patent No. 9,847,915*. Washington, DC: U.S. Patent and Trademark Office.
- Bagozzi, R. P., Yi, Y., & Phillips, L. (1991a). Assessing construct validity in organizational research. *Administrative Science Quarterly*, 36,421–458
- Bandura, A. (1986). Social foundations of thought and action. *Englewood Cliffs, NJ*, 1986(23-28).
- Berg, A. et al. (2015) *East Africa: The next hub for apparel sourcing?* McKinsey & Company.
- Berkowitz, L., & Harmon-Jones, E. (2004). Toward an understanding of the determinants of anger. *Emotion*, 4(2), 107.
- Cao, M., & Zhang, Q. (2011). Supply chain collaboration: Impact on collaborative advantage and firm performance. *Journal of operations management*, 29(3), 163-180.
- Chetty, S., & Eriksson, K. (2002). Mutual commitment and experiential knowledge in mature international business relationship. *International business review*, 11(3), 305-324.
- Danese, P., Romano, P., & Formentini, M. (2013). The impact of supply chain integration on responsiveness: The moderating effect of using an international supplier network. *Transportation Research Part E: Logistics and Transportation Review*, 49(1), 125-140.
- David, F. R. (2011) *Strategic Management: concepts and cases*. 13th ed. New Jersey: Prentice Hall.

- De Souza Miguel, P. L., & Brito, L. A. L. (2011). Supply chain management measurement and its influence on operational performance. *Journal of Operations and Supply Chain Management*, 4(2), 56-70.
- Emerson, R. M. (1987). Social exchange theory.
- Hartley, J. L., & Choi, T. Y. (1996). Supplier development: customers as a catalyst of process change. *Business horizons*, 39(4), 37-44.
- Hausman, A., & Johnston, W. J. (2010). The impact of coercive and non-coercive forms of influence on trust, commitment, and compliance in supply chains. *Industrial Marketing Management*, 39(3), 519-526.
- Hogan, S. J. & Coote, L. V. (2014). Organizational culture, innovation, and performance: A test of Schein's model. *Journal of Business Research*, 67(8), 1609-1621.
- Holm, D. B., Eriksson, K., & Johanson, J. (1999). Creating value through mutual commitment to business network relationships. *Strategic management journal*, 20(5), 467-486.
- Hope, K. (2014) 'Informal economic activity in Kenya: Benefits and drawbacks', *African Geographical Review* 33(1): 67–80.
- Hubbard, D. W. (2009). *The failure of Risk Management: Why It's Broken and How to Fix It*. New Jersey: John Wiley & Sons.
- ICJ (International Commission of Jurists) (2013) *Handbook on devolution*. Nairobi: ICJ Kenya.
- Kenya Association of Manufacturers. (2016) Sectors
- International Institute for Environment and Development- IIED. (2015) *The rural informal economy*.
- International Labour Organisation. (2013) *Transitioning from the informal to the formal economy*. Geneva, ILO.
- Kenya National Bureau of Statistics (2016) Economic Survey 2016.
- Kenya National Bureau of Statistics (2016) Economic Survey 2016.
- Kenya National Bureau of Statistics (KNBS) (2012). *Economic Survey 2011*. Nairobi, Kenya: Government Printer
- Kenya National Bureau of Statistics (KNBS) (2012). *Economic Survey 2011*. Nairobi, Kenya: Government Printer
- Lewis, S. (2015). *Qualitative inquiry and research design: Choosing among five approaches*. *Health promotion practice*, 16(4), 473-475.
- Ministry of Industry, Trade and Cooperatives. (2016) Kenya's Industrial Transformation Programme.
- Narasimhan, R., & Talluri, S. (2009). Perspectives on risk management in supply chains.
- Nel, C. & Beudeker, N. (2009). *(R) evolution: How to Create a High Performance Organisation*. Village of Leaders Products. Thousand Oaks: Sage Publications.



- Orodho, A. J. (2012). *Techniques of Writing Proposals and Research Reports in Education and Social Science Research Methods*: Maseno. Kenya: Kanezja Publishers.
- Prenekert, F., & Hallén, L. (2006). Conceptualising, delineating and analysing business networks. *European Journal of Marketing*.
- Rostami, A. R., Valmohammadi, C., & Yousefpoor, J. (2014). The relationship between customer satisfaction and customer relationship management system; a case study of Ghavamin Bank. *Industrial and Commercial Training*.
- Schein, E. H. (2010). *Organizational culture and leadership*. New Jersey: John Wiley & Sons.
- Sekaran, U. & Bougie, R. (2009). *Research Method for Business, a Skill Building Approach*. Wiley, Singapore.
- Sekaran, U. & Bougie, R. (2016). *Research methods for business: A skill building approach*. New Jersey: John Wiley & Sons.
- Shields, P. M., & Rangarajan, N. (2013). *A playbook for research methods: Integrating conceptual frameworks and project management*. New Forums Press.
- Shin, H., Collier, D. A., & Wilson, D. D. (2000). Supply management orientation and supplier/buyer performance. *Journal of operations management*, 18(3), 317-333.
- Srinivasan, M., Mukherjee, D., & Gaur, A. S. (2011). Buyer–supplier partnership quality and supply chain performance: Moderating role of risks, and environmental uncertainty. *European Management Journal*, 29(4), 260-271.
- Tarafdar, M., & Qrunfleh, S. (2017). Agile supply chain strategy and supply chain performance: complementary roles of supply chain practices and information systems capability for agility. *International Journal of Production Research*, 55(4), 925-938.
- Wang, K. T. (2015). *Research design in counseling*. Chicago: Nelson Education.
- World Bank (2016a) *Kenya Economic Update*. Washington, DC: World Bank.