

## INFLUENCE OF SUPPLIER RELATIONSHIP MANAGEMENT ON PERFORMANCE OF MANUFACTURING FIRMS IN KENYA

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### Abstract

**Purpose:** The main objective of this study was to investigate the influence of supplier 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 supplier relations management on performance management of manufacturing firms in Kenya at 5% level of significant ( $\beta=0.295$ ,  $P<0.05$ ). This indicates that as the level of supplier relationship management increases also performance of manufacturing firms in Kenya increases significantly.

**Unique contribution to theory, practice and policy:** The study provides evidence that indeed supply 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. Supply 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 supply 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.

**Keywords:** *Supplier Relationship Management, Performance and Manufacturing Firms.*

## 1.0 INTRODUCTION

Supplier relationship managing is the process whereby organizations interact with their suppliers for mutual benefit (Cavinato, 2012). Akitoye (2013) added supply chain risks due to uncertainties pose threats to organizations who have not taken supplier relation management as of value to them. Organizations are increasing relying on outsourcing and distribution service providers. This is because the dynamic business environment in that supply chains have become very complex and uncertain (Smith, *et. al*, 2013). Miguel and Brito (2011) argued that the main advantage of building long-term relationships with suppliers is to reduce the costs of transactions through trust. For a firm to remain competitive then extensive understanding of the buyer supplier relation is indispensable (Berkowitz, 2004). Organizations have realized that for sustainable profits and to remain competitive over a longer period, then it is crucial to maintain relationships with their suppliers, this helps to deal with the uncertain operating environment (Shin *et al.*, 2014). Olendo & Kavale (2016) add that maintaining relationship with suppliers requires trust and commitment which is the tool that will motivate the suppliers to share crucial information with the firms.

Managing supplier relations is about the association and connections between the organization and its top priority suppliers (Cavinato, 2012). Olendo & Kavale (2016) also asserts that managing suppliers provides the link between the organization and its final clients. To improve the efficiency and operations of the organization supply chain network, SRM would be the solution. Effective supplier relationship management can make the procurement process more cost and time efficient hence ensuring alignment of the supply chain (Akech, 2010). Having supply market intelligence and applying a correct competition situation are ways to implement a good supplier management strategy. Other issues that should be accounted are a reliable source for supplier performance and evaluation as well as developing the suppliers (Barratt & Oliveira, 2011).

Since competitive advantage has to do with an organization manufacturing performance, we can rightfully say that manufacturing firm's capacity to achieve competitive advantage primarily lies in its manufacturing performance (World Bank, 2016). Manufacturing performance, in turn, seems to be affected by various plant specific factors such as competitive priorities and manufacturing choices/decisions as well as innovative manufacturing practices. These aspects constitute manufacturing strategy content (Peng *et al.*, 2011). The rising performance in the manufacturing sector has been the major component in the successful transformation of most economies that have seen sustained rises in their per capital incomes (World Bank, 2016).

A vital element of India's rapid economic growth since the early 1990s has been the improved performance of its manufacturing sector. Output in manufacturing grew by 5.7% per year in the period 1993-2005 (Reserve Bank of India, 2008). Manufacturing sector is very vital to the economy of New Zealand (NZ). It is the largest economic sector in New Zealand, contributing 14.6 percent to the country's GDP in 2012 (BusinessNZ, 2014). This makes New Zealand one of the more manufacturing-heavy economies (OECD, 2014).

According to Owuoth (2010), Kenya as realized that the manufacturing sector is the lifeline of its economy simply because it plays a very crucial role in the long-term prosperity of a country. Kariithi and Kihara (2017) posit that Africa's manufacturing sector has been changing over time, and showing transformations in dynamic domestic demands, national policies and also the world market. Importance of the manufacturing sector to the national economies of the Africa countries

has varied across different periods since independence, however, in the recent years its contribution to the national income and hence its importance has been on the rise (Kariithi & Kihara, 2017).

The main responsibility of the manufacturing sector in the Kenya Vision 2030 is to create employment and prosperity. This sector which is controlled by subsidiaries of multi-national companies, contributed 13% of the GDP in 2004. However, the sector has seen a reduction in its contribution to GDP from 13.6 percent in the early 1990's to 9.2 percent in 2012. The sector has seen a decrease in growth from 3.4 percent in 2011 to 3.1 percent in 2012. The real growth in the sector averaged 4.1% p.a. during 2006-2013, lower than the average annual growth in overall real GDP of 4.6%. The sector contributions to GDP improved marginally to 10.3% in 2019 as compared to 2020 which was at 10%. Kenya Manufacturing sector showed lack of growth and dwindling profits for a period of past five years which was attributed to unforeseeable operating environment. 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**

A strategic alliance is considered a major factor in maintaining a supply chain's competitive position. It has received increased awareness in the arena of supply chain management (Anni-Karsaet *al.*, 2017). The foundational need for combined thinking and operations and the need to link the supply chain have not changed even though they supply chain management keep changing (Graham, 2016). Supply chains, being inter-organizational and inter-functional, are known to be more effective with the coordinated and collaborative efforts among partners (Claudine & Hyland, 2015).

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 (Evelyne *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 study focuses on the role of supplier relationship management as a driver for firm performance

### **1.2 Problem Statement**

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, 2016). 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% according to World Bank (2014). 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**

To examine the influence of supplier relationship management on performance of manufacturing firms in Kenya.

## **2. LITERATURE REVIEW**

### **2.1 Theoretical Review**

#### **2.1.1 Resource Dependence Theory (RTD)**

Many firms are dependent on their environment for the supply of natural resources, but these resources are becoming increasingly scarce and costly (Cetinkaya, 2011). According to RDT, organizations are not self-sufficient and embeddedness in a network of relationships is a response to the uncertainty involved in a relationship and the resource dependence (Pfeffer & Salancik, 1978). An organization may increase its safety stock of a strategic natural resource

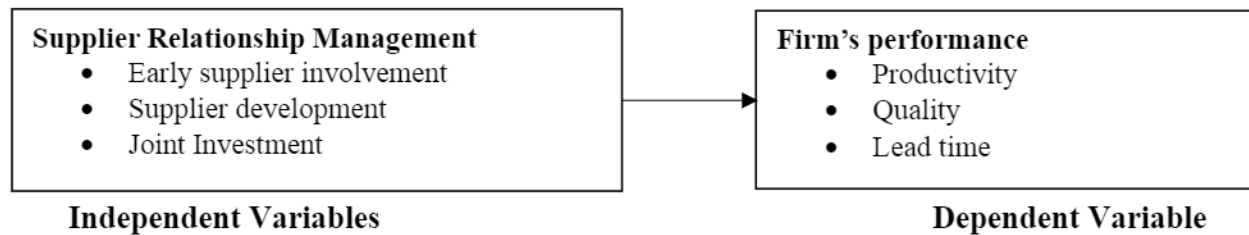
following a buffering strategy and, simultaneously, it could establish collaboration with a supplier of this scarce natural resource following a bridging strategy (Bode *et al.*, 2011). Resource dependence theory (RDT) assisted the study in determining the influence of supplier relationship management on performance of manufacturing firms in Kenya. Resource dependence theory (RDT) argues that firms must exchange with their environments to gain resources (Scott 1987). It centers solely on resources that must be acquired from external sources for a firm to survive or thrive (Barringer & Harrison, 2000).

Current literature on supply chain management makes the ambiguous assumption that the constituents of the supplier-buyer dyad are willing and able to cultivate mutually beneficial relationships (Hong *et al.*, 2012). The supply chain alliance is considered a complex and dynamic environment which spans across a large number of actors (Vijayasathy, 2010) relying on the alliances strength to improve its overall performance (Prajogo & Olhager, 2012). Firms survive or succeed if they can exploit their dependence on other firms or other firms' dependence on them to attain necessary resources (Hofer *et al.*, 2012). However, dependency does not necessarily result in adversarial relationships between buyers and suppliers. The need for external resources makes firms depend on others. To successfully manage dependencies, RDT argues that firms must gain control over vital resources to reduce reliance on others and increase others' reliance on them (Min *et al.*, 2005).

When an organization maintains extensive linkages to the external environment, they are most likely to be powerful within their organizational network (Prajogo & Olhager, 2012). Forming alliances with suppliers, customers and in some cases even competitors to co-create solutions to problems has become increasingly important to an organization's business strategy and basis of competitive advantage (Zacharia *et al.*, 2011). Extending the logic of resource dependence theory from the supply chain to the firm level, supply chain partners as a whole are less relying on their environments through resources sharing. A supply chain cannot be responsive unless there are satisfied suppliers (Benton & Maloni, 2005) working with their downstream buyers to service or supply the end user. In conclusion, resource dependency theory was a good theory in analyzing the effect of supplier relationship management on performance of manufacturing firms.

## 2.2 Conceptual Framework

Orodho (2012) defines a conceptual framework as a graphical or a diagrammatical model of presentation of the connection between the study variables. It is 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). Below is a diagrammatic representation of the relationship between supplier relationship management and firm's performance as shown in figure 1.



**Figure 1: Conceptual Framework**

## 2.3 Empirical Review

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

Supplier relationship is a key strategy for a firm to remain competitive in the dynamic business environment and to curb the risk of uncertainty. This enables a firm to gain competitive advantage (Raut *et al.*, 2012). In their study, Von Haartman & Bengtsson (2015) found positive effects of supplier relationship management and proficiency on product innovation using a sample of 679 manufacturing companies in Europe, the USA, and Canada. Furthermore Peng *et al.*, (2013) found that to improve a firm innovation capability and thereby improve performance then supplier management is paramount.

Castelli & Brun (2010) are of the opinion that the linkage and communication between an organization and its customers is valuable to customers. SRM adds value by making the right product available to customers at the right time, by ensuring the right supplies are provided at the right price and quantity to the firm. It also leads to seamless flow of information between the organization and its suppliers and in the end its customers (Sundram *et al.*, 2011).

Divesh & Zillar (2016) conducted a study on how buyer and supplier relationship lead to supply chain sustainability. The study sort to identify the factors affecting sustainability adoption in the Indian automobile supply chain, and investigate the inter-relationships existing among them. The study found that a maintaining good relations between the organization and the suppliers improved the performance of the organization on three areas of, economic performance, environmental performance and social performance which is commonly referred to as the triple bottom line. The supplier relationship was assessed after breaking it down to three constructs - supplier selection, supplier development and supplier performance review (Divesh & Zillar, 2016).

Supply chain deficiencies pose threats to most organizations especially those who do not perceive the need for supplier relationship management (SRM) (Akintoye, *et al.*, 2013). Shu Mei- Tseng (2014) conducted a study to investigate how firms use knowledge to gain, improve and maintain supplier relations and thereby improve organization performance. They discovered that supplier relationship positively affects performance of a firm. This implied that firms should enhance they knowledge management so as to attain and retain valuable suppliers (Shu Mei- Tseng, 2014).

Hughes (2010) stated that inefficient supply chains were the major cause of poor organizational performance he insisted that organizations with integrated supply chains recorded high profits than those who paid little attention to supply chains. Supplier Relationship Management necessitates a consistency of approach and a defined set of behaviors that foster trust over time Flynn (2010). Effective Supplier Relationship Management requires not only institutionalizing

new ways of collaborating with key suppliers, but also actively dismantling existing policies and practices that can impede collaboration.

Beach (2012) insisted that trust is key to any successful supplier relationship management. A good relationship is built on trust between the organization and the supplier. Firms and their suppliers with different business practices and terminology come together into a working relationship through SRM (McLachlin & Larson, 2011). According to Zimmermann, Rajal, Buchholz, Plinval & Geissmann (2015) Strategies such as Supplier segmentation, SRM governance, supplier performance management, and supplier development are used to manage supplier relations. Supplier segmentation involves categorizing suppliers based on a definite set of standards in order to recognize the significant suppliers with which to participate in SRM (Chopra & Meindl 2013).

A study by Goko (2012), found out that that suppliers need to maintain reliable records, errors to be identified early, supermarkets to decentralize their management structures, suppliers should conform to two specifications and that senior level management should be fully committed especially in supplier development programs so as to overcome the challenges faced in supplier quality management. In his study, Ratemo (2011) was evident that suppliers failed to maintain proper records, long cycle times and increased costs in procurement. The company also failed to maintain good relationships with their suppliers leading to poor supply chain performance.

Ratemo (2011) in his study concluded that it was evident that suppliers failed to preserve proper records, long cycle times and increased costs in procurement. The enterprise failed to maintain good relationships with their suppliers leading to poor procurement performance. Wachira (2013) established that trust, communication, risk assessment and management as well as strategic supplier partnership were the fundamental supplier relationship features and had a helpful relationship on procurement performance. Kamau (2013) reviewed key relationship models in supplier management and concluded that trust, communication, commitment, cooperation and mutual goals are key ingredients in successful relationship, which in turn affect performance positively.

### **3.0 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.

## 4.0 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 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

#### 4.2.1 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
Supplier Relationship Management	0.782	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 0.782, and 0.788 for Supplier 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 Approx. Chi-Square	df	Sig.	Validity
Supplier Relationship Management	0.638	75.29	36	0.000	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 75.29 and a p-value of < 0.05 imply that the coefficients were significant. The result implies that there was a



significant correlation between Supplier Relationship Management and organization performance of the firms.

### 4.3 Supplier Relationship Management (SRM) and Performance

#### 4.3.1 Descriptive Statistics for Supplier Relationship Management (SRM)

Respondents were required to rank the supplier's relationship management indicators in order of preference by ranking the performance of the indicator as Least important =1, Moderately Important=2, Neutral =3, Important =4 and very Important =5. The results were analyzed and presented in subsections below

#### 4.3.2 Ranking SRM indicators in order of importance

Respondents were required to rank the supplies relationship management indicators in order of importance. The results were analyzed and displayed in table 3.

**Table 3: Descriptive Statistics of SRM indicators in order of importance**

Statements	N	Mean	Std. Deviation
Joint Product Development has a positive effect in improving lead time	180	4.02	1.196
Joint planning helps in improving lead time	180	3.86	1.346
Customer support systems are key in improving lead time	180	3.79	1.345

From table 3, respondents rated joint product development has a positive effect in improving lead time with (mean=4.02 $\approx$ 4, SD=1.196), this indicates that majority of the respondents rated joint product development has a positive effect in improving lead time is important. It had a small standard deviation which indicates that majority had a common rating that joint product development has a positive effect in improving lead time is important. On Joint planning helps in improving lead time had (mean=3.86 $\approx$ 4, SD=1.346), this indicates that majority of the respondents rated joint planning helps in improving lead time as important. It had a small standard deviation which indicates that majority had a common rating that Joint planning helps in improving lead time is important. On customer support systems are key in improving lead time had (mean=3.79 $\approx$ 4, SD=1.345), this indicates that majority of the respondents rated customer support systems are key in improving lead time as important. It had a small standard deviation which indicates that majority had a common rating that customer support systems are key in improving lead time is important.

#### 4.3.3 Extent of agreement on Supplier Relationship Management (SRM)

Respondents were required to disagree or agree on the supplies relationship management indicators in order of importance. The results were analyzed and displayed in table 4.

**Table 4: Descriptive Statistics of SRM indicators in order of importance**

Statements	N	Mean	Std. Deviation
Early supplier involvement plays a significant role in improving lead time	180	4.15	1.033
Early supplier involvement plays a significant role in improving productivity	180	4.15	1.126
Joint investment play a significant role in improving productivity	180	4.06	1.087
Supplier development plays a significant role in improving productivity	180	4.04	1.135
Joint investment play a significant role in quality improvement	180	4.01	1.114
Supplier development plays a significant role in improving lead time	180	4.01	1.116
Joint investment play a significant role in improving lead time	180	3.95	1.150
Early supplier involvement plays a significant role in quality improvement	180	3.89	1.101
Supplier development plays a significant role in cost quality improvement	180	3.88	1.220

From table 4, on early supplier involvement plays a significant role in improving lead time had (mean=4.15 $\approx$ 4, SD=1.033), this indicates that majority of the respondents agreed that early supplier involvement plays a significant role in improving lead time in manufacturing organizations. It had a small standard deviation which indicates that majority had a common agreement that early supplier involvement plays a significant role in improving lead time. on Early supplier involvement plays a significant role in improving productivity had (mean=4.15 $\approx$ 4, SD=1.126), this indicates that majority of the respondents agreed that early supplier involvement plays a significant role in improving productivity in manufacturing organizations. It had a small standard deviation which indicates that majority had a common agreement that early supplier involvement plays a significant role in improving productivity. On joint investment play a significant role in improving productivity had (mean=4.06 $\approx$ 4, SD=1.087), this indicates that majority of the respondents agreed that joint investment play a significant role in improving productivity in manufacturing organizations. It had a small standard deviation which indicates that majority had a common agreement that joint investment play a significant role in improving productivity. On supplier development plays a significant role in improving productivity had (mean=4.04 $\approx$ 4, SD=1.135), this indicates that majority of the respondents agreed that Supplier development plays a significant role in improving productivity in manufacturing organizations. It had a small standard deviation which indicates that majority had a common supplier development plays a significant role in improving productivity. On joint investment play a significant role in quality improvement had (mean=4.01 $\approx$ 4, SD=1.114), this indicates that majority of the respondents agreed that Joint investment play a significant role in quality improvement in manufacturing organizations. It had a small standard deviation which indicates

that majority had a common Joint investment play a significant role in quality improvement. On supplier development plays a significant role in improving lead time had (mean=4.01 $\approx$ 4, SD=1.116), this indicates that majority of the respondents agreed that Supplier development plays a significant role in improving lead time in manufacturing organizations. It had a small standard deviation which indicates that majority had a common supplier development plays a significant role in improving lead time. On supplier development plays a significant role in improving lead time had (mean=3.95 $\approx$ 4, SD=1.150), this indicates that majority of the respondents agreed that Joint investment play a significant role in improving lead time in manufacturing organizations. It had a small standard deviation which indicates that majority had a common Joint investment play a significant role in improving lead time. On supplier development plays a significant role in improving lead time had (mean=3.89 $\approx$ 4, SD=1.101), this indicates that majority of the respondents agreed that early supplier involvement plays a significant role in quality improvement in manufacturing organizations. It had a small standard deviation which indicates that majority had a common early supplier involvement plays a significant role in quality improvement. On supplier development plays a significant role in cost quality improvement had (mean=3.88 $\approx$ 4, SD=1.122), this indicates that majority of the respondents agreed supplier development plays a significant role in cost quality improvement in manufacturing organizations. It had a small standard deviation which indicates that majority had a common Supplier development plays a significant role in cost quality improvement.

#### **4.4 Inferential Statistics**

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

The study sought to establish the influence of supplier relationship management on performance of manufacturing firms in Kenya. This was established based on the coefficients of the linear regression model between supplier relationship management on performance of manufacturing firms in Kenya. The analysis started by testing the equivalent researchable hypothesis on the supplier relationship management on performance management of manufacturing firms in Kenya.

**Ha:** Supplier relationship management improves performance of manufacturing firms in Kenya.

Using Anova table the regression model with training and development as a predictor was not significant (F=52.079, p- value =0.071) which shows that there is a significant supplier relationship management on performance management of manufacturing firms in Kenya. This leads in failing to reject the researchable hypothesis as predicted that: Supplier relationship management improves performance of manufacturing firms in Kenya. The results conquer with the findings of 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 hence enables the supplies of the manufacturing firm to increases also. Thus for a manufacturing firm to remain competitive then extensive understanding of the buyer supplier relation is indispensable (Berkowitz, 2004). The Anova results were displayed in table 5.

**Table 5: ANOVA of Supply Relations management**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.478	1	9.478	52.079	.071 <sup>b</sup>
	Residual	32.428	178	.182		
	Total	41.906	179			

a. Dependent Variable: Organization Performance

Based on the regression model and table 5 the coefficient of determination (R squared) of 0. 226 shows that 22.6 % of the variation in performance in manufacturing firms in Kenya can be explained by supply relations management. The adjusted R square of 0.221 depicts that all the supply relations management in exclusion of the constant variable explain the variation in performance management by 22.1% 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. 476 shows that there is positive relationship between performance management and Supply Relations management. Thus, managing supplier relations is about the association and connections between the organization and its top priority suppliers (Cavinato, 2012). Olendo and Kavale (2016) also asserts that managing suppliers provides the link between the organization and its final clients and hence build a strong supply relations which can improve the performance of the organization. The standard error of estimate (0. 453) shows the average deviation of the independent variables from the line of best fit. This is very small and hence the model can predict performance management based on supply relations managements with minimal errors. These all were processed and displayed in table 6 below.

**Table 6: Model Summary Supply Relations management**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.476 <sup>a</sup>	.226	.221	.453

a. Predictors: (Constant), Supply Relations management

The study objective was to establish the influence of supplier relationship management on performance of manufacturing firms in Kenya. Based on regression analysis, the model indicated a positive significant effect (coefficient) of ( $\beta = 0.295$  and  $p \text{ value} < 0.05$ ). This was shown in the equation below

$$\text{Organization Performance} = 2.828 + 0.295 * \text{Supply Relations management}$$

This indicates that as level of Supply Relations management increases also level of Performance Management increases. This implies that to improve the efficiency and operations of the organization supply chain network, SRM would be the solution. Effective supplier relationship management can also make the procurement process more cost and time efficient hence ensuring alignment of the supply chain as found by Akech (2010). This also conquers with the finding by Barratt and Oliveira (2011) that found out that a reliable source for supplier performance and evaluation is directly linked with the performance management of the manufacturing firms. The results were shown in the table 7 below.

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

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.828	.167		16.940	.021
	Supply chain relations	.295	.043	.476	6.796	.006

a. Dependent Variable: Organization Performance

## 5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1 Summary of the Findings

The study sought to establish the influence of supplier relationship management on performance of manufacturing firms in Kenya. Based on regression analysis, the model indicated a positive significant effect (coefficient) of ( $\beta = 0.295$  and  $p \text{ value} < 0.05$ ). This indicates that as the level of supplier relationship management increases also performance of manufacturing firms in Kenya increases significantly.

### 5.2 Conclusion

The study concluded that early supplier involvement, supplier development and Joint Investment are supplier relationship management process that improves the performance of manufacturing firms in Kenya.

### 5.3 Recommendations

The study provides evidence that indeed supply 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. Supply 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 supply 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

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