

## **Effects of Contract Management Practices on Supply Chain Performance on Manufacturing Firms in Nairobi County, Kenya**

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### **To cite this article:**

Lesere, S. (2018). Effects of Contract Management Practices on Supply Chain Performance on Manufacturing Firms in Nairobi County, Kenya. *Journal of International Business, Innovation and Strategic Management*, 1 (4), 41-59

**Abstract:** The study focused on investigating the effect of contract management practices on supply chain performance of manufacturing firms in Nairobi County. In addressing the latter, the study established the effect of relationship management, contract administration, contract appraisal and contract appraisal and contract closure on supply chain performance as the specific objectives of the study. Descriptive research design was used for the study and the questionnaire was the main data collection instrument. The study constituted a sample of manufacturing firms in Nairobi County, the number of employees in the sample was 198. Statistical analysis was carried out using statistical packages for social science SPSS version 22. Inferential statistics was used to make predictions or inferences about the population from observations and analyses. The study findings indicate that the four variables, that is relationship management, contract administration, post contract appraisal and contract closure positively and significantly affect supply chain performance. As such, manufacturing firms should embrace more relationship management. The study recommends that future studies should focus on the other sectors.

**Keywords:** *Contract management practices, Supply chain performance, Relationship management, Contract administration, Contract appraisal, Contract appraisal, Contract closure*

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### **Introduction**

According to PPOA, (2007) procurement contract is a written agreement between a procurement entity and a supplier, a contractor which is enforceable by law. Contract management pertains to preparation of procurement documentation, the processing and approval of such documentation, monitoring contract implementation approving and administering contract variations and modifications and possibly cancelling or terminating contracts. Contract administration is the management of contracts made with vendors, customers, employees or partners. Contract management involves negotiating the conditions in contracts and terms and ensuring obedience with the terms and conditions, as well as documenting and harmonizing on any changes or adjustments that may come up during execution or implementation.

It can therefore be summed up as the process of efficiently and systematically, execution and managing contract creation, and analysis for the purpose of maximizing operational performance together with financial and minimizing risk. (Hannah *et al*, 2014). Contract life cycle is the process of efficiently and systematically managing contract creation, analysis and execution for maximizing financial and operational performance and minimizing risks. The foundations for effective and successful post-award contract management rely upon careful, comprehensive and thorough implementation of the upstream or pre-award activities. At the pre-award stages, the emphasis should be concentrated on why the contract is being developed on whether the supplier is capable to deliver in service and technical terms. However, cautious consideration must be given to how the contract will work once awarded (PPOA, 2007). PPOA (2007) points out that, sound contract management of a project revolves around control of cost, time, quality and resources. Cost control means the execution and completion of the project within the agreed time schedule; quality control means execution of the project in conformance with technical requirement and specification; resource control refers to the management resources personnel, equipment, and supplies. These key deliverables in contract are echoed by Cooper (2000), who emphasize on planning, monitoring and controlling of time, cost and scope. For each contract entered into, the procuring entity must designate a member of staff, as the contract administrator responsible for administering the contract. There should be a team approach to the contract management of large and complex projects.

### **Statement of the Problem**

New regulatory requirements, globalization, increase in contract volumes and complexity have resulted in an increasing recognition of importance and benefits of effective contract management (PPOA, 2007). Contract Management in public procurement has significant implications for service delivery. The Common Market for Eastern and Southern Africa Procurement Directive, nor the United Nations Commission on International Trade Law Model, specifically address the subject of contract management. As Investment Climate Statement (2013), Transformation Index-Kenya (2014) reveal, Kenya loses a lot of taxpayers' money to improper procurement practices, specifically because of poor contract management practices. Data shows that the government of Kenya spends between 10 percent -30 percent of Gross Domestic Product on procurement alone (Maria, 2013). Out of that 15% goes to waste due to lack of proper management of the contracts (Pyke, 2006). As a result of these economic situations, the World Bank and the International Monetary Fund (IMF) had to intervene by putting in stringent conditionality's for lending funds to the government which slowed down economic development by 2.1 percent (Transparency International, 2009).

Taking the case of procurement audits conducted by PPOA in 2007, it was attested that procurement contracts in 33% of the audited procurement (in 30 Public Entities) were not implemented as per the terms of the contract, including institutions of higher learning. Poor contracts management was contributed by inadequate human and financial resources, weak contract terms, poor supervision and quality control, inadequate contracts management skills and corruption (PPOA, 2007). Another study was done by Rotich (2014) on contract management practice and operational performance of state corporations in Kenya. Kikwezi (2012) did a study on procurement contract management in public procurement and disposal entities Kibogo and Mwangangi (2014), factors affecting contract management in public procurement sector in Kenya. With all these studies it implies that little research has been conducted on effect of contract management on procurement performance itself. With these knowledge gaps this study therefore tends to investigate the effect of contract management on supply chain performance specifically looking at manufacturing firms in Nairobi County.

## **Objective of the Study**

- i. To determine the effect of relationship management on supply chain performance in manufacturing firms in Kenya.
- ii. To assess the effect of contract administration on supply chain performance in manufacturing firms in Kenya.
- iii. To examine the effect of post contract appraisal on supply chain performance in manufacturing firms in Kenya.
- iv. To find out the effect of contract closure on supply chain performance in manufacturing firms in Kenya.

## **Literature Review**

### **Theoretical Review**

#### **Stakeholders Theory**

Stakeholder theory originated by Freeman (1984) is defined as “any group or individual who can affect or affected by the achievement of the organization’s objectives”. Unlike agency theory in which the managers are working and serving for the stakeholders, stakeholder theorists suggest that managers in organizations have a network of relationships to serve that include the suppliers, employees and business partners. According to Freeman (2002), each stakeholder is given an important say in making important decisions. Business and executives who manage them, should create value for customers, suppliers, communities and financiers (Christopher, 2009). The stakeholder argues about the importance of firm paying special attention to the various stakeholder groups that are deemed to have a stake in the operations of an organization. The representation of all stakeholder’s groups on boards is therefore necessary for effective supply chain performance (Gibson, 2000). The model depicts the stakeholders in a typical large corporation. The stakes of each are reciprocal, since each can affect the other in terms of harms and benefits as well as rights and duties (Freeman,2002).Owners have financial stake in the corporation and expect returns.(Frey&Nickerman,2009).The stakeholders’ theory was used to establish how relationship management affects supply chain performance trough supporting different stakeholders such as the suppliers ,the government, civil society and various user departments in ensuring proper contract management.

#### **Theory of Constraints**

George (2005) theorized that the Theory of Constraints (TOC) is a philosophy of management and improvement originally developed by Eliyahu M.Goldratt and introduced in his book, The Goal. It is based on the fact that, like a chain with its weakest link, in any complex system at any point in time, there is most often only one aspect of that system that is limiting the ability to achieve more of its goal. For that system to attain any significant improvement that constraint must be identified and the whole system must be managed with it in mind. In borrowing this concept, procurement seek to identify the constrains in the contract management that emanates from poor contract administration and monitoring then work collectively to eliminate the constrain thus improving the achievement of the goals and objectives of the contract.

The TOC thinking process, taken as a whole, provides an integrated problem-solving methodology that addresses not only the construction of solutions, but also the need for communication and collaboration that successful implementation of supply chain function requires. They have been used to create powerful generic starting point solutions for various supply chain inefficiencies including: long supplier lead times, incoming quality problems, late or unrenovable raw materials or purchased past deliveries, raw material shortages, poor quality. The theory will be useful in explaining the contract administration where proper contract planning and monitoring should be done in order to check any constrains.

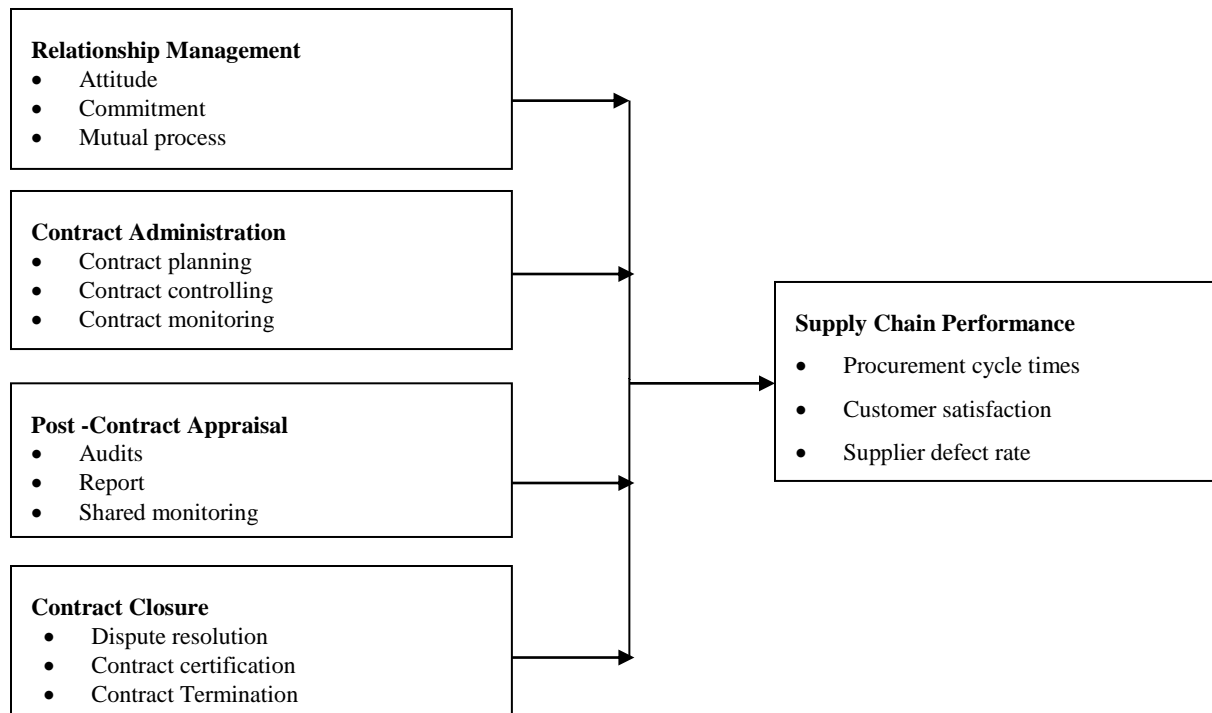
### **Principal Agent Theory**

Agency theory was expounded by Alchian and Demsetz (1972) and further developed by Jensen and Meckling (1976). The theory defines the relationship between principals, such as shareholders and agents or company executives and managers. In this theory, shareholders who are the owners of the company, hire agents to perform work. This theory relates to independent variable on post contract appraisal where the principal delegates the running of the business to the managers, who are the shareholders agents (Gupta, 2008). The important assumption underlying agency theory are that, potential goal conflicts exist between principals and agents: each party acts in its own self-interest; information asymmetry frequently exist between principals and agents are more risk averse than the principals; and efficiency is the effectiveness criterion (Mohammed, 2008). The theory deals with situations in which the principal is in a position to induce the agent, to perform some task in the principal's interest, but not necessarily the agent's (Kibogo, 2014). Compliance with procurement rules and regulations that govern the contract management maybe as a result of the principal agent problem (Langevoort, 2002). In borrowing the concept, the theory was useful in explaining the post contract appraisal where reports and audits are taken and submitted to the principal who is in this case the government.

### **Contract Theory**

In economics, the contract theory studies how economic actors can and do construct contractual arrangements, generally in the presence of asymmetric information. Because of its connection with both agency and incentives, contract theory is often categorized within a field known as law and economics. One prominent application of it is the design of optimal schemes of managerial compensation (Lazar, 2006). A standard practice in the micro economics of contract theory is to represent the behaviors of a decision maker under certain numerical utility structures, and then apply an optimization algorithm to identify optimal decisions. Such procedure has been used in the contract theory framework to several typical situations, labelled moral hazard, adverse selection and signaling. The spirit of these model lies in finding theoretical ways to motivate agent to take appropriate actions.

## Conceptual Framework



### Independent Variables

### Dependent Variable

**Figure 1 Conceptual Framework**

### Relationship Management

Another externally oriented activity mentioned in the strategy documents is developing relationships with selected suppliers and consequently increasing efficiency in the mutual process and thereby decreasing supplier's costs (Pyke, 2006). By selecting suppliers with whom so sign long term agreements ranging over a series of projects and by e.g implementing e –procurement portals, the contractors seek to facilitate ordering and to increase the standardization of the supplier's available product ranges. Another aim is to mutually develop the selected supplier's efficiency. An internally focused activity which has been formulated in the strategy documents is coordinating purchasing within the contractor organizations (pyke, 2006). This can be achieved be intensifying agreement compliance concerning long term agreements (Pyke, 2006). The indicates that construction companies experience challenges in implementing purchasing and in coordination process and practices between purchasing department and projects.

Fink *et al.*, (2006) argue that this refers to the actions and initiatives of the contracting company to create positive relationship with the contractor. This depends on the mutual trust, understanding, regular communication and timely management of possible problems in the contract. There has been an increasing focus on the changes that have occurred during the last decades in the relationship between buyers and suppliers.

### **Contract Administration**

This procedure involves maintain an updated form of the contract; controlling and managing contract variations; paying the contractor; managing assets; drafting reports and terminating the contract (Hannan 2014) . Contract administration starts with developing clear, concise performance based statements of work. The statement of work should be the road map for construct administration. Therefore, planning for contract administration. Therefore, planning for contract administration occurs prior to issuance of the solicitation. The goal of contract administration is to ensure the contract is satisfactory performed and the responsibilities of both parties are properly discharged. Effective contract administration minimizes or eliminates problem and potential claims and disputes. A key factor in successful contract administration is communication. It is essential contract administration to understand the provisions of the purchase document, have the ability to communicate contract obligation to all parties involved, and maintain control over the contract performance.

### **Post Contract Appraisal**

Given the multitude of supplements, the establishment of an appropriate operational unit for post-contract management is essential in order to minimize open claims, conflict potential and related handling time by means of process optimization (Azeem, 2010). Performance review is a comparison of the performance of the goods, works, materials and services against the quoted, specified and agreed criteria. As has already been pointed out, measurement is a vital part of the contracting process, yet it is sometimes forgotten once a contract has been completed and contracting authorities have moved on to another project. With a large procurement, a post contract review is always an appropriate tool (Abeeden, 2011).

### **Contract Closure**

A contract closed upon reaching the end of the contract, or when a contract is terminated before the work is completed usually by the buyer if the work is no longer required, or if the work performed is not acceptable due to quality or other reasons. The contractor may still need to be compensated for the work completed, as governed by the clauses in the contract. The final activity of contract management is contract closure. This entails control and certification practices that are both contracting parties have honored their contractual activities involved in evaluating degree of successful contract execution and achievement of expected results (Chong, Balamuralithara & Chong, 2011).

### **Supply chain performance.**

Costello (2008) argues that suppliers get motivated to do business with firms that have effective contract unit where activities are straightforward, needs and deadlines met and costs are well managed; hence enhanced operational performance. As well, Lehto,(2010) sought to establish the effective incorporation of flexibility in contracting process.



They found out that flexibility is important in contract management practices on operational performance can be measured successfully using the key performance indicators. Depending on the nature of the business, operational measures vary across firms and industries ( Jusoh & Parnell, 2008). In such a competitive corporate world, organization strive to establish performance measurement matrix to gauge against their targets and business rival. Some of the key indicators of procurement performance used include; efficiency, quality, flexibility, supplier relationships, supplier defects rates and procurement cycle time (Cho & Pucick, 2005).

## **Research Methodology**

The study adopted descriptive survey design. According to Cropper (2008), study design is a master plan that comprise of strategies selected to integrate diverse components of the study in a logical and organized manner to facilitate the research objectives. For the purpose of this study the target population was stratified through staff of the firms. The study populations for this study were 395 procurement professionals and accounting officers of manufacturing firms in Nairobi. Sampling size was the list of all 395 targeted staff, from where the respondents will be selected. The study used the Yamane (1967) formula to arrive at the sample size of 198 respondents. The study used stratified random sampling in selection of 198 employees; Random sampling frequently minimizes the sampling error in the population. This in turn increases the precision of any estimation methods used (Ahmed, 2015). A questionnaire was used to collect required data for this study; the questioners used for the study composed of open and closed ended questions. Qualitative data analysis was used because it helped the researcher to gain in-depth understanding of the research findings. The quantitative data collected was analyzed using the SPSS Version 22. In this study, data was presented inform of tables and pie charts where applicable and necessary. Multiple regression model was used to show the relationship between dependent and independent variable. The study was computed using ANOVA and beta coefficients. The regression equation was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y= Supply chain performance of Manufacturing firms,  $\beta_0$ = Constant,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$ = Regression coefficients,  $X_1$ = Relationship management,  $X_2$ = Contract administration,  $X_3$ = Post contract appraisal,  $X_4$ = Contract Closure,  $\varepsilon$  = error term.

## **Results**

The study sampled 198 respondents from which 112 filled in and returned the questionnaires making a response rate of 56.6 % This response rate was adequate to make conclusions on the effects of contract management practices on supply chain performance of manufacturing firms in Kenya.

## Respondents General Information

**Table 1 Respondent General Information**

Demographic Characteristic	Category	Percentage
Respondent gender	Male	53%
	Female	47%
Respondent's level of education		23.33%
	Lower management	20%
	Middle management	43.33%
	Senior management	13.33%
Respondent's level of education	Masters	22.3%
	Degree	61.6%
	Diploma	16.1%
Job category	Accounting officer	20%
	Procurement officer	80%
Respondent working experience	>15 years	17 %
	10-15 years	27.7%
	6-10 years	36.6%
	1-5 years	18.85

## Descriptive Analysis

### Relationship Management

The finding implicated that attitude is critical for procurement cycle times and helps in reduction of time spent during inspection of the goods and services during delivery (mean=3.77). The findings agreed with Dahwa *et al* (2013) Study on buyer-supplier procurement practices and their impact on business performance that attitude between buyer-supplier has an impact on performance. The study also found that majority of the respondents admitted that the occurrence of defective items was less (mean=3.7). The study found that respondents admitted that attitude affects returns (mean=3.58). Further, the study found that respondents agreed to the opinion that where there is commitment, delivery of goods, services and works was prompt (mean=3.18). Respondents admitted that commitment between suppliers and buyers enhanced customer services (mean=3.64). Respondents also admitted that commitment affect less returns (mutual processes between suppliers and buyers ensures faster decision making where there is mutual processes between suppliers and buyers, response rate to customer needs was flexible mutual processes between suppliers and buyers resulted to less defects.



**Table 2 Effect of Relationship Management on Supply Chain Performance.**

Statements	Mean	Std. Deviation
Attitude affect procurement cycle time in the organization	3.77	0.181
Commitment affect customer satisfaction in the organization	3.70	0.139
Commitment affects supplier defect rate	3.58	0.189
Mutual process affects supplier defects rate.	3.18	0.175
Attitude affects quality services	3.64	0.162
<b>Average</b>	<b>3.57</b>	<b>0.138</b>

From the findings, majority of the respondents agreed that attitude affect procurement cycle time in the organization as shown by mean of 3.77. Majority of the respondents agreed that commitment affects customer satisfaction in the organization as shown by mean of 3.70. Respondents agreed that commitment affects supplier defect rate as shown by mean of 3.58. Concisely, Majority of the respondent were in agreement that mutual process affects supplier defects rate and attitude affects quality services as shown by mean of 3.18 and 3.64 respectively. From the findings it's clear that mutual processes between suppliers and buyers are important in determining the supplier defect rate which affect the supply chain performance. As such, relationship management is strongly affected by mutual a process which in turns affects the supply chain performance in terms of achieving their objectives especially on reduction of supplier defect rate.

## Contract Administration

**Table 3 Effect of Contract Administration on supply chain performance.**

Statements	Mean	Std. Deviation
Contract planning affect procurement cycle time	3.87	0.216
Contract monitoring affect customer satisfaction	3.81	0.188
Contract planning affects supplier defects rate	4.10	0.257
Contract control affects procurement cycles	3.18	0.214
Contract monitoring affects quality service	4.37	0.264
<b>Average</b>	<b>3.87</b>	<b>0.228</b>

Majority of the respondents agreed that contract planning affect procurement cycle time in the organization shown by a mean of 3.87. Respondents agreed that contract monitoring affect customer satisfaction showed by a mean of 3.81. Majority of the respondents strongly agreed that contract planning affects supplier defects shown by a mean of 4.10. Respondents agreed that contract control affects procurement cycle time and contract monitoring affects quality service shown by a mean of 3.18 and 4.37 respectively. From the findings, it was clear that contract administration affects supply chain performance with more emphasis on contract planning, contract monitoring and contract control. It's clear from the findings that proper contract planning affects supply chain performance and is important in reduction of procurement cycle times.

## Post Contract Appraisal

**Table 4 Effect of Post Contract appraisal on supply chain performance.**

Statements	Mean	Std. Deviation
Contract audit affects procurement cycle time in the organization	4.01	0.221
Contract reports affects customer satisfaction in the organization	4.06	0.216
Contract reports affects supplier defects rate	3.96	0.201
Shared benefits affects supplier defects rate.	3.99	0.210
Contract reports affects quality of service and products	3.81	0.201
<b>Average</b>	<b>3.97</b>	<b>0.209</b>

The study found out that majority of the respondents agreed that Contract audit affects procurement cycle time in the organization showed by a mean of 4.01. Majority of the respondents alluded that Contract reports affects customer satisfaction in the organization showed by a mean of 4.06. Majority of the respondents agreed that Contract planning affects supplier defects rate showed by a mean of 3.96. Concisely the findings showed that majority of the respondents agreed on the statement that Shared benefits affects supplier defects rate and Contract reports affects quality service shown by a mean of 3.99 and 3.81 respectively. As such, the study implication is that contract audit, contract reports and shared benefits affects supply chain performance with an equivalent magnitude. The findings also implicated that proper contract audits are important for delivery of the right quality goods, services and works and ensures customer satisfaction.

## Contract Closure

**Table 5 Effect of contract closure on supply chain performance.**

Statements		Std. Deviation
Dispute resolution affect procurement cycle time in the organization	4.32	0.273
Contract termination affect customer satisfaction in the organization	4.30	0.258
Dispute resolution affects supplier defect rate	3.55	0.155
Contract certification affect customer satisfaction.	4.21	0.246
Dispute resolution affects quality of service and products	3.99	0.169
<b>Average</b>	<b>4.07</b>	<b>0.220</b>

The study sought to find out respondent agreement with the statements relating to the effect of contract closure on supply chain performance. From the study findings, majority of the respondents agreed that Dispute resolution affect procurement cycle time in the organization shown by a mean of 4.32. The respondents agreed that contract termination affect customer satisfaction in the organization showed by a mean of 4.30. Majority of the respondents agreed that dispute resolution affects supplier defect rate shown by a mean of 3.55. Additionally, majority of the respondents agreed that Contract certification affect customer satisfaction and dispute resolution affects quality of service and products shown by a mean of 4.21 and 3.99 respectively. The implications of these findings is that dispute resolution affects procurement cycle times in the firms.

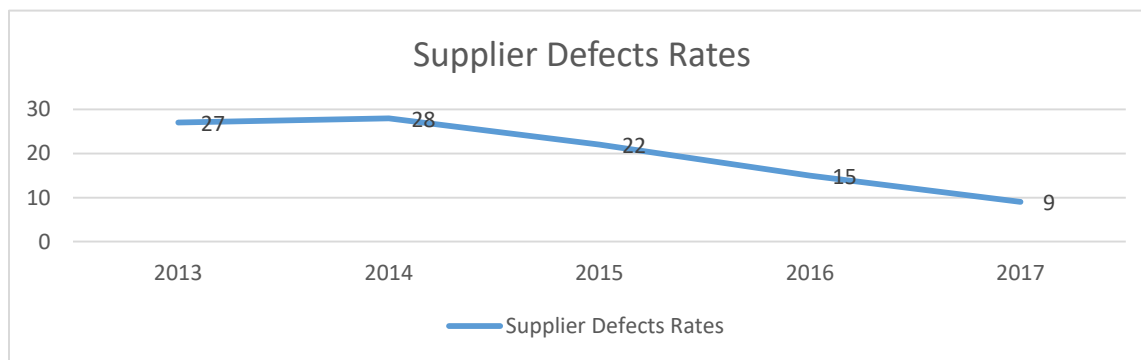
## Supply Chain Performance

The study findings indicate that majority of the respondents are indifferent about customer satisfaction, it is clear that in the years and contract success rates are fluctuating and improving which shows a positive improvement. This implies that rate of successful contracts fluctuates depending on the factors affecting the performance of both the suppliers and the buyers, a number of complaints are received in the procurement department annually in relation to failed contracts and customer satisfaction varies depending on performance of each contract and therefore contract management practices affects customer satisfaction.



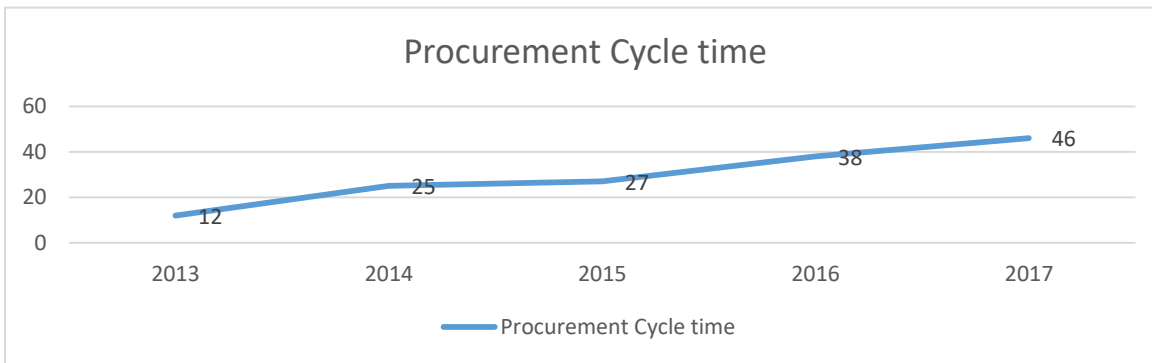
**Figure 2 Customer Satisfaction**

The study found out that 2013 had the most rejects due to poor contract delivery at 27% while 2017 had the lowest at 9%. Contract management practices has led to a reduction in supplier defect rates as shown in the figure above. From the findings, it is clear that contract management practices have been leading in reduction of supplier defects rate.



**Figure 3 Supplier defects**

The study findings indicate that contract delivery has been improving. The number of contracts delivered within thirty days after the request has been raised has improved as the years progressed. This implies that contract management has reduced procurement cycle times as the years progressed.



**Figure 4 Showing Procurement Cycle Time**

### Correlation Analysis

The results showed that relationship management has the strongest positive (Pearson correlation coefficient=0.713; P value 0.000) effect on supply chain performance. In addition, contract administration, post contract appraisal and contract closure are positively correlated to supply chain performance. The correlation matrix implies that independent variables are very crucial determinants of supply chain performance by their strong and positive relationship with the dependent variable; organization performance.

**Table 6 Correlation Coefficients**

	Relationship Management	Contract Administration	Post Contract Appraisal	Contract Closure	supply chain Performance
Relationship Management	1				
Contract Administration	0.522	1			
Post Contract Appraisal	0.561	0.451	1		
Contract Closure	0.611	0.394	0.412	1	
supply chain Performance	0.713	0.632	0.613	0.526	1

### Regression Results

Adjusted R squared is coefficient of determination that tells us variation in the dependent variable due to changes in the independent variables. From the findings in table 4.6 the value of adjusted R squared was 0.648, an indication that there was variation of 64.8 percent on supply chain performance due to changes in relationship management, Contract Administration, Post contract Appraisal and Contract closure. The R Square in this case is 0.660, which clearly suggest that there is a strong relationship between relationship management,

Contract Administration, Post contract Appraisal, contract closure and supply chain performance. This indicates that relationship management, contract administration, post contract appraisal, contract closure shares a variation of 66% of supply chain performance of manufacturing firms.

**Table 7 Model Summary**

Model	R	R square	Adjusted R Square	Standard Error of the Estimate
1	.813 <sup>a</sup>	.660	.648	.13747

**Table 8 ANOVA**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	62.456	4	15.614	11.7046	.013
Residual	142.738	107	1.334		

Since the tabulated F (critical) (4,107) at  $\alpha = 0.05$  was 2.45 which is less than F computed (11.7046) hence there is a significant effect of the independent variables and thus the overall model is significant. As such, the model is fit significant at 5% confidence level.

**Table 9 Coefficients**

B	Unstandardized coefficients	Unstandardized coefficients		
	Std Error	Beta	t	Sig.
Constant	.159	.046		.001
Relationship management	.297	.040		.463
Post Contract Appraisal	.288	.050		.381
Contract Closure	.135	.021		.335
contract Administration	.295	.064		.429



Relationship management was found to have positive significant effect on supply chain performance of manufacturing firms ( $X_1 = 0.297$ ,  $P = 0.000 < 0.05$ ), shows that one unit change in relationship management results in 0.297-unit increase in supply chain performance of manufacturing firm other factors held constant. Contract administration was found to have positive significant effect on supply chain performance of manufacturing firms ( $X_1 = 0.295$ ,  $P = 0.000 < 0.05$ ), shows that one unit change in Contract administration results in 0.295-unit increase in supply chain performance of manufacturing's firm other factors held constant. Post contract Appraisal was found to have positive significant effect on supply chain performance of manufacturing firms ( $X_1 = 0.288$ ,  $P = 0.000 < 0.05$ ). Shows that one unit change in Post Contract Appraisal results in 0.295-unit increase in supply chain performance of manufacturing firm's other factors held constant. Contract closure was found to have positive significant effect on supply chain performance of manufacturing firms ( $X_1 = 0.135$ ,  $P = 0.000 < 0.05$ ). Shows that one unit change in Post Contract Appraisal results in 0.135-unit increase in supply chain performance of manufacturing firm's other factors held constant. The beta coefficients indicate the relative importance of each independent variable (Relationship management, Contract Administration, Post contract Appraisal and contract closure affecting the dependent variable (supply chain performance) of manufacturing firms.

## **Conclusions**

From the findings it's clear that relationship management affects supply chain performance, more specifically mutual processes between suppliers and buyers. Relationship management is strongly affected by mutual processes which in turns affects supply chain performance in terms of achieving their objectives especially on reduction of supplier defect rate. Contract administration affects supply chain performance with more emphasis on contract planning and contract monitoring. It's clear from the findings that proper contract planning affects supply chain performance and is important is reduction of procurement cycle times. The study findings indicate that post contractual appraisal affects supply chain performance. Contract audit, contract reports and shared benefits affects supply chain performance with equivalent magnitude. The study concluded that all the four variables significantly and positively affects supply chain performance. Relationship management is the most important in supply chain management performance followed by contract administration then post contract appraisal and the least is contract closure. The study further concludes that proper contract management is essential in ensuring that all parties to the contract fully meet their respective obligations as efficiently and effectively as possible, delivering the business and operational outputs required from the contract and providing value for money, customer satisfaction and reducing cycle time. Post-contract activities lead to more efficient and effective management of the supplier base. This in turn can foster greater organizational competitiveness. The study found out that most firms does not engage in proper post contract activities; after delivery of the contract.

## **Recommendations**

The study recommends that manufacturing firms should maintain the spirit of good relationship. Good attitude between the suppliers and buyers is essential in enhancing supply chain performance of a firm. Mutual process should also be created between the parties in the organization to enhance smoothness of the operational

activities and entire performance of a procurement function. The study recommends that manufacturing firms should put in place post contract activities and mechanism to ensure that future contracts are successful. Suppliers and contractors need to be evaluated based on their performance for future contracts and this would provide an environment for creating buyer-supplier relationships with mutual understandings towards beneficial outcomes. The study also recommends that dispute resolutions mechanisms should be implemented to reduce procurement cycle times. Mechanism will assist in solving disputes that arises and thus enhancing the efficiently and effectiveness of the organization operational activities. Concisely, firms should review their dispute resolution mechanism and put in place those that would be time efficient to avoid time wastage.

### **Conflict of Interest**

No potential conflict of interest was reported by the authors.

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