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IMPELLERS OF CONTRACT MANAGEMENT IMPERATIVES ON SUPPLY CHAIN PERFORMANCE ON MANUFACTURING FIRMS IN NAIROBI COUNTY, KENYA

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Abstract

The study focused on investigating the effect of contract management Imperatives 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. The literature review introduced various dimensions on effect of contract management Imperatives on supply chain performance which included background of the study, theoretical review, conceptual framework, empirical review, critique of existing literature, summary of research gaps. The study used the following theories in support of the research objectives, the stake holder theory which supports the stakeholder theory, the theory of constrains which support contract administration, principal argent which supports post contract appraisal and contract theory which expounds on contract closure the beneficiaries of the study are future researchers, institutions of higher learning and the government. 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. Pilot testing was done to ensure the reliability and validity of the instrument. Statistical analysis was carried out using statistical packages for social science SPSS version 22 to generate information which was presented using tables, charts, frequency distribution tables and percentages. 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.

Keyword: Contract Management, Contract Closure, Contract Administration, Supply Chain Performance, Procurement Professional, Relationship Management.

Introduction

According to PPOA, (2009) 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 (Aberdeen,2007).

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 (CIPS, 2007).

PPOA (2009) 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 Meredith Mandel (2012), 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.

For a sound project contract management Brown and Hyer(2010) identifies some critical success factors which include; the ability to identify metrics relevant to the project, that is, a balanced set of performance indicators; capacity to generate accurate information; visibility to team members to enable every individual player/stakeholder to know what is being measured and have ready access to information; ability to provide a basis for problem discovery and solution; the system should be in-built into the project plan right from the point of project planning stage; the capacity to generate timely decision making and corrective action. Cleland & Bidanda (2009) have stated that in highly connected and competitive world, most projects must function in an environment that interacts with joint ventures, alliances, multinational

sourcing, sub-contractors and intricate vendor relations. Relationships with external organizations are managed through contracts. In general, companies provide services or products based on the results of direct contract negotiations with the client. One of the most important factors in preparing a proposal and estimating the cost and profit of a project is the type of contract expected.

Important work by Pryke, (2006) treated projects as network of relationships that need managing to achieve project success. In the construction sector, a number of studies have identified the importance of managing interrelationships between parties within a project. Studies focusing on organizing projects as temporary multiparty organizations in the 1980s came from Brensen, (1988) in the United Kingdom, and from Packendorff (1995) in Europe. Brensen and Marshall (2000) further looked at partnering within the construction industry. A key issue remained of how to embed partnering relationship in the contract. The use of the contract form to govern the relationship and resolve conflicts among the contracting parties has been explored by various parties such as Lazar (2000), and Cicmil and Marshall (2005) but with no specific contractual devices developed.

Manufacturing sector contribute significantly to the growth of the economy in Kenya. As per KAM Report, (2016) the manufacturing sector contributes to about 10%- 15% of the total Gross Domestic Product. There are approximately 3000 manufacturing firms in Kenya subdivided in different sectors of the economy. According to KAM (2006), Kenya is ranked first in having the most developed manufacturing sector among the EAC member countries. Manufacturing sector forms the core of the industry for economic growth and development because of its immense potential for wealth, employment creation, foreign exchange, foreign investment and poverty reduction in the society Gordon, (2017).

Kenyan manufacturing firms have legislative framework that is bandied in the contract agreement that recognize the value of proportionality. Effective and efficient procurement regulation call for effective contact management rule. The procurement framework essentially limit the exemptions from regulations to contract outside the public procurement domain for evident and justified reasons, specifically defenses procurement, special house arrangements or development 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 (CIPS, 2007). Contract Management in public procurement has significant implications for service delivery. Any challenges accruing from this function pose several challenges yet, contract management offers an important framework for ensuring the success of any procurement undertaking (Kakwezi, 2012). The Common Market for Eastern nor 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 Imperatives, specifically because of poor contract

management Imperatives. 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 (Gordon, 2009).

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 2009, 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, 2009).

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

To determine the effect of contract management Imperatives on supply chain performance of manufacturing firms in Nairobi County, Kenya. The study was guided by the following specific objective

1. To determine the effect of relationship management on supply chain performance in manufacturing firms in Kenya.
2. To assess the effect of contract administration on supply chain performance in manufacturing firms in Kenya.
3. To examine the effect of post contract appraisal on supply chain performance in manufacturing firms in Kenya.
4. To find out the effect of contract closure on supply chain performance in manufacturing firms in Kenya.

Theoretical Review

This study was supported by stakeholder theory, theory of constraints, the principal agent theory, contract theory and the Marxist theory on performance.

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. 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

Ochieng (2014) 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. 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 unrenewable 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. This theory relates to independent variable on post contract appraisal where the principal delicates the running of the business to the managers, who are the shareholders agents (Clarke, 2004).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 (Laffont, Martimort, 2012). The crucial but typical implicit, assumption in contract theory is that the incentive contract is costless enforceable and the contractor can be held accountable for delivery of any contracted activities, typically through the courts. In relation to the contract theory, contract closure is done when both the principal and agent are able to meet their goals and objectives.

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 suppliers' costs (Peab, 2012). 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 suppliers 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 (peab, 2012). This can be achieved be intensifying agreement compliance concerning long term agreements (Peab, 2012).

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 (Hansson & Longva 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 (Aberdeen, 2011). 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 Imperatives 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 Imperatives 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 Gaps

Ruchiu (2008) argues that despite the fact that contracts are made in good spirit, many contracts are not supervised. Aman, and Maelah (2012) asserts, contract management may also suffer from inadequate skilled resources. Angeles and Nath (2007) reveal that contract managers often face the challenge due to unclear project scope and unrealistic timeline and budgets. Rendon (2010) further outlines critical success factors for both project and contract management as being qualified workforce, clear processes, relationships, resources, leadership and policies all of which have a direct impact on an organization's project management and contract management processes as well as resulting outcomes. Greve (2008) points out; organizations that achieve success in contract management ensure that they formulate a 'win win' situation for both the contracting authority and contractor. Studies relating to contract management have been done but a few deals with impact on supply chain performance. Gupta, Karayil and Rajendran (2008) reveal that poor contract management causes substantial loss of savings.

The above mentioned studies focused on private and non-governmental organizations and some were conducted in different business environments outside Kenya; hence inappropriate to apply their findings and conclusions on the Kenyan context. Further, state corporations do not necessarily focus on profits; instead they aim at effective service delivery to the citizens. Therefore, a clear link between the two variables (contract management and supply chain performance) is necessary. It was for this reason that the study proposed to explore the effect of contract management Imperatives on supply chain performance in manufacturing firms within Nairobi County. In addition, PPOA recommends more studies on sound contract administration Imperatives in order to boost the performance of the procurement system in Kenya. Nonetheless, the type of performance measured in the study is unclear (PPOA, 2007).

Research Methodology

The study adopted descriptive survey design. The study populations for this study were 395 procurement professionals and accounting officers of manufacturing firms in Nairobi. The study used the Yamane (1967) formula to arrive at the sample size. Therefore, using Yamane (1967) formula, the sample size was 198 out of 395 targeted staff, which will represent 50% of the target 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 (Cooper & Schindler, 2013). Questionnaire was used to collect required data for this study; the questioners used for the study composed of open and closed ended questions. The data was collected through questionnaires. The questionnaires were self-administered through pick and drop approach, this is important for collection of primary data. Secondary data was obtained from published annual reports of the manufacturing firms Pilot study was conducted by issuing questionnaires to 10% of the target population in manufacturing firms.

Qualitative data analysis gives a complete and detailed description of a phenomenon. It allows for fine distinctions to be drawn because it is not necessary to put the data into classification of numbers. Thus, the qualitative data analysis will be used because it helped the researcher to gain in-depth understanding of the research findings. In quantitative data analysis features are counted and classified into statistical models in attempt to explain what is observed. In this, findings can be generalized and direct comparison can be made. The quantitative data to be collected was analyzed using the Statistical Package for social Sciences (SPSS) Version 22. SPSS is the most suitable because it presents data in more scientific manner and other statistical tools can also be enjoined during dissertation. In this study, data was presented inform of tables and pie charts where applicable and necessary. They were in line with the research design and the research objectives. This method is the most suitable for this study because it is easily readable and clearly communicates the meaning of the data. Microsoft excel and other supporting spreadsheets will be used in presentation of the data. Multiple regression model was used to show the relationship between dependent and independent variable.

Results and discussion

Data analyzed using descriptive and inferential statistics and presented in tables and charts and graphical presentation. The study sampled 198 respondents from which 112 filled in and returned the questionnaires making a response rate of 56.6 % as presented in table 4.1. This response rate was adequate to make conclusions on the effects of contract management Imperatives on supply chain performance of manufacturing firms in Kenya. According to Mugenda and Mugenda (2008), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response of 70% and above is excellent.

A pilot study was carried out to determine the reliability of the questionnaires. Reliability of the questionnaires was evaluated through Cronbach's Alpha which measures the internal consistency and establishes if items within a scale measures the construct. The index alpha was

computed using SPSS version 22 and measured the average of measurable items and its correlation. Cronbach's Alpha was established for each variable as shown in Table 1

Table 1: Reliability Analysis

Variable	Cronbach's Alpha	Comments
Relationship management	0.813	Reliable
Contract Administration	0.816	Reliable
Post-contract Appraisal	0.794	Reliable
Contract closure	0.786	Reliable

The table above shows that contract administration had the highest reliability (α= 0.816), followed by relationship management (α=0.813), Post- contract appraisal (α=0.794), and Contract closure (α=0.786). This illustrates that all the variables were reliable as their reliability values exceeded the prescribed threshold of 0.7 as contended by Field (2009).

Descriptive Analysis

Descriptive statistics was used to describe the basic features of the data in the study. They provide simple summaries on the sample and the measures. Together with the simple graphics analysis, they form basis of virtually every quantitative data (Kothari, 2012).

Relationship Management

The study sought to determine the extent to which relationship management affects the supply chain performance of manufacturing firms in Kenya.

Effect of attitude on procurement cycle times

The respondents were asked to indicate the effect of attitude between buyers and suppliers on procurement cycle times. The study found that the majority 50% of the respondents admitted that inspection time was less, 40% admitted that delivery time was shorter and 10% agreed to the opinion that credit period was longer. 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. The findings agreed with Dahwa *et al* (2013) Study on buyer-supplier procurement Imperatives and their impact on business performance that attitude between buyer-supplier has an impact on performance.

Effect of attitude on customer Satisfaction

The respondents were asked to indicate the effect of attitude between buyers and suppliers on customer satisfaction. The study found that majority (50%) of the respondents admitted that the occurrence of defective items was less, 42% admitted that there was delivery of the right quality and 8% agreed to the opinion that returns had reduced. The findings implicated that attitude is critical when it comes to supplier delivery of right items. The findings agree with Osman, (2013) study on customer satisfaction and customer loyalty.

Effect of attitude on supplier defect rate

The study found that (17%) of the respondents admitted that attitude affects returns, 33% admitted that there existed amicable dispute resolutions and 50% agreed to the opinion that attitude resulted to longer mutually beneficial relationships. The findings concurs with (Jing, 2012) Study that found out that attitude has an impact on supplier defect rate that is the defect rate declines after given that the parties trust each other.

Effect of commitment on procurement cycle times

The study found that majority 71% of the respondents agreed to the opinion that where there is commitment, delivery of goods, services and works was prompt, 10% admitted that commitment between buyers and suppliers reduce idle capacity and 19% agreed to the opinion that commitment reduces inspection time. The findings agreed with Korir, (2015) on the effect of buyer-supplier relationships on procurement performance that found that commitment has a positive and significant effect in procurement performance.

Effect of commitment on customer satisfaction

The study found that majority 58% of the respondents admitted that commitment between suppliers and buyers enhanced customer services, 25% admitted that commitment between suppliers and buyers ensured that there is delivery of goods and services of high quality and 17% agreed to the opinion that where there is commitment, customers enjoyed discounted prices. The findings agreed with Agtunes *et al* (2016) on the effects of satisfaction on customer loyalty in distribution sector.

Effect of commitment on supplier defect

The study found that 57% of the respondents admitted that commitment affect less returns, 30% admitted that there existed amicable disputes resolutions and 13% agreed to the opinion that commitment resulted to longer mutually beneficial relationships. The findings implicated that when there is high level of commitment then there will be less returns, which equates to customer satisfaction.

Effect of mutual activities on procurement cycle times

The study found that majority 67% of the respondents agreed to the opinion that mutual processes between suppliers and buyers ensures faster decision making, 23% admitted that mutual process ensures prompt delivery and 10% agreed to the opinion that mutual processes between suppliers and buyers results in faster decision making which shortens procurement cycles times. The findings agree with Cannon & Perreault, (2009) findings on mutual exchange of information between buyers and suppliers and concluded that mutual exchange of information between buyers and suppliers influence procurement performance, this is reflected in shorter cycle times.

Effects of Mutual processes on customer satisfaction

The study found that majority 56% of the respondents admitted that where there is mutual processes between suppliers and buyers, response rate to customer needs was flexible, 23%

admitted that mutual processes improves customization and 21% agreed to the opinion that there is mutual processes gives an opportunity to return salvage items. The findings implicated that mutual process between supplier and buyer highly affects rate of flexibility to respond to customer needs which is very important for customer satisfaction. The findings agree with Hannan, (2015) study on relationship management and customer satisfaction which concluded that mutual sharing of information has a positive impact on customer loyalty thus influenced customer satisfaction.

Effect of Mutual processes on supplier defect rate

The study found that 57% of the respondents admitted that mutual processes between suppliers and buyers resulted to less defects, 30% admitted that mutual processes between suppliers and buyers reduced the inspection time during delivery and 13% agreed to the opinion that mutual processes between suppliers and buyers resulted to longer credit period. The findings implicated that mutual processes is important for the rate defects that is, the higher the level of mutual process the lower the defect rate. The study findings concurs with Azeem (2010) study that concluded that information sharing is prerequisite for knowledge sharing and the close supplier-buyer relationship is a vital factor for escalating suppliers operational performance.

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 processes which in turns affects the supply chain performance in terms of achieving their objectives especially on reduction of supplier defect rate. The findings are in tandem with Oyugi *et al* (2015) who concluded that proper relationship with suppliers would significantly improve performance in his study on relationship management and supply chain performance hence supplier development programs, strategic management of supply base and increased information sharing impact performance.

Contract Administration

The study sought to determine the effect of contract administration on supply chain performance on manufacturing firm in Kenya. 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. The findings concur with Njeru, (2013) who concluded that there existed a strong relationship between contract planning and supply chain performance, hence study concludes that the presence of procurement portfolio, efficient logistics management and adherence to procurement plans affects supply chain performance. In addition, the findings agree with Kabega (2016) who concluded that proper contract administration improves supply chain performance in terms of short-time delivery and customer satisfaction on his study on construction projects and contract management. The purpose of contract management therefore is the enable the firm to utilize the available resources fully to achieve the overall procurement objectives.

Post Contract Appraisal

The study sought to find out the effects of post contract appraisal on supply chain performance of manufacturing firms in Kenya. 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. The findings are tandem with Mlinga, (2014) who did a study on contract audit and found out that there is a relationship between proper contract audits and customer satisfaction while managing contracts, hence for proper contract deliver proper auditing needs to be carried out. The findings also agree with CIPS, (2009) that post contract appraisal is important for in that it contributes to success of a project, thus impacting on supply chain performance, which in overall contribute towards the organizations competitive advantage.

Contract Closure

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. These results is tandem with Chong (2011) that contract closure should

involve controlling and certifying that all parties have honored their contractual responsibilities; controlling and certifying that all activities of evaluation of successful contract execution; ensuring the achievement of expected results; and termination of contracts effectively.

Supply Chain Performance

The study sought to examine the respondent's percentage measurement of procurement function in relation to contract management Imperatives within the firm over a period of five years with the variable concerning contract management and supply chain performance within the firms.

Customer satisfaction

Figure 1: Showing Customer Satisfaction

The study findings indicates 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. The year 2017 had the highest rates 74% of customer satisfaction due to contract management Imperatives while the year 2014 had the least rate 36% of customers were satisfied due to contract management Imperatives. 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 Imperatives affects customer satisfaction. The findings concur with Gupta (2008) who revealed that poor contract management causes substantial loss of savings and customer dissatisfaction.

Supplier Defects Rates

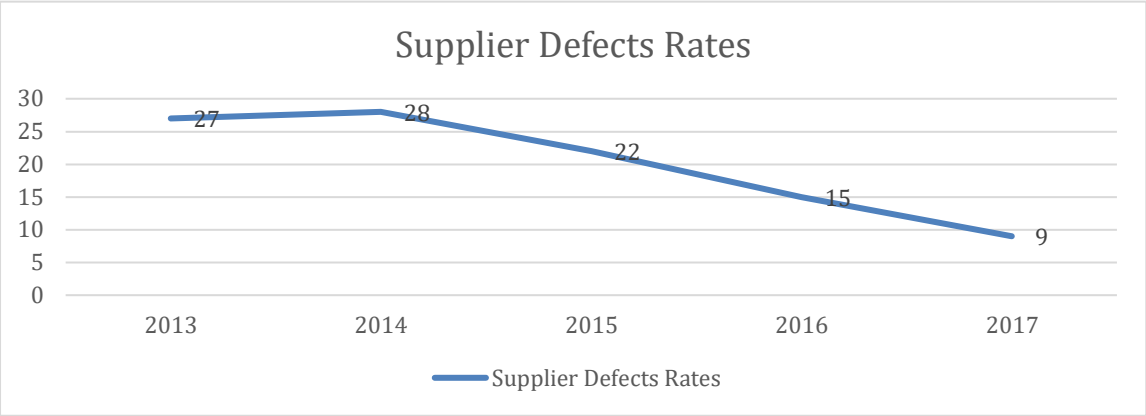

Figure 2: Showing Supplier Defects Rates

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 Imperatives has led to a reduction in supplier defect rates as shown in the figure above. In 2013, contract management Imperatives contributed to 27% reduction in supplier defects, 2014 was 28%, 2015 was 22%, 2016 was 15% and finally 2017 at 9% reduction in supplier defects rates. From the findings, it is clear that contract management Imperatives has been leading in reduction of supplier defects rate. This finding is tandem with Rotich, (2012) that effective contract management improves supplier performance, in the aspect of compliance and meeting specifications in state cooperation's in Kenya.

Procurement cycle Time

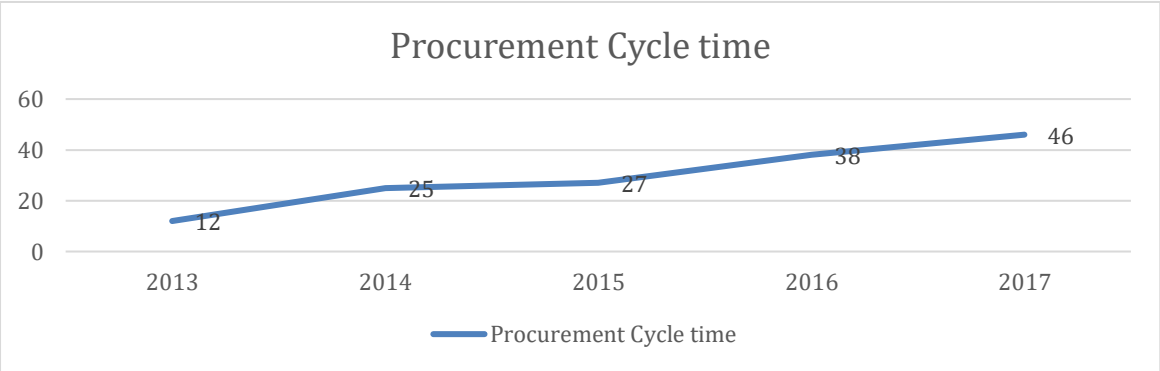

Figure 3: Showing procurement cycle time

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. The respondents indicated that percentage reduction in procurement cycle times has been increasing within the years, in 2017, the reduction in cycle times was the highest with 46%, in 2016 there was a 38% reduction in cycle times, 2015 was 27%, 2014 was 25% and

finally 2013 at 12%. This implies that contract management has reduced procurement cycle times as the years progressed. The findings concur with Kakwezi (2012) that contract management Imperatives in public procurement has significant implications for service delivery, that is proper contract management procurement cycle time is reduced significantly.

Inferential Analysis

After descriptive analysis, inferential analysis was conducted using correlation and multiple regressions to determine the extent and direction of relationship between independent and dependent variables.

Correlation Analysis

Multicollinearity is a measure of the existence of strong correlation between independent variables. The aim of the correlation test was to identify the association between contract management Imperatives on supply chain performance. Two independent variables are said to be correlated if their P-value is greater than 0.5 and as such on of the variables should be dropped from the model.

Table 2: 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

***Correlation is significant at 0.02 level (1-tailed)**

The analysis above shows that relationship management has the strongest positive (Pearson correlation coefficient=.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 as shown in Table 4.5 by their strong and positive relationship with the dependent variable; organization performance.

Table 3: Model Summary

Model	R	R square	Adjusted R Square	Standard Error of the Estimate
1	.813[a]	.660	.648	.13747

Adjusted R squared is coefficient of determination which 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 4: Analysis of Variable

Model	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Regression	62.456	4	15.614	11.7046	.013[b]
	142.738	10	1.334		
Total	205.194	111			

Since the tabulated F (critical) (4,107) at α= 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.

Table 5: Coefficients

		Unstandardized coefficients	Unstandardized coefficients			
Model		B	Std Error	Beta	T	Sig.
	Constant	.159	.046		3.475	.001
	Relationship management	.297	.040	.463	7.415	.000
	Post Contract Appraisal	.288	.050	.381	5.760	.000
	Contract Closure	.135	.021	.335	6.430	.000
	Contract Administration	.295	.064	.429	4.609	.000

A simple regression model was used in determining the level of effect the independent variable have on dependent variable as shown below.

$Y=0.159+0.297X_1+0.295X_2+0.288X_3+0.135X_4+e$

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 firms 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 firms' 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 affect 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. Manufacturing firms needs proper outline procedures for contract administration. The study found out that most of these institutions do not bother following up with the contractors to ensure that the contract is fulfilling its mandate. To them, once a contractor is awarded then it is left as the contractor's obligation to ensure the contract is fulfilled. The study recommends that manufacturing firms should put in place post contract activities and mechanism to ensure that future contracts are successful. The study 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.

Areas for Further Research

Further research should include other sectors to ascertain the effects of contract management Imperatives on supply chain performance. Additionally, contract management Imperatives should be compared in different sectors such as public, non-profit and profit-making organizations. In conclusion, the findings showed that 66% of the supply chain performance is explained by the four variables and the remaining 34% is accounted by the standard error.

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