
PROCUREMENT PRACTICES AND PERFORMANCE OF MANUFACTURING INDUSTRY IN NAIROBI COUNTY, KENYA

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Abstract

The general objective of this study was to effect of procurement practices on performance of the manufacturing industry in Nairobi County, Kenya. The specific objectives are; to determine effect of procurement process management, effect of supplier sourcing, on performance of manufacturing industry in Nairobi County, Kenya. The study was based on resource based view theory, grey theory, just in time theory, transaction cost theory. The study employed descriptive research design. The unit of analysis was 50 manufacturing firms in Nairobi County. The study targeted 500 senior procurement, production, marketing, finance and accounting staff. Stratified random sampling technique was used to sample 220 staff. Data was collected using questionnaires. A pilot was conducted with 22 staff. The study used content and convergent validity. Cronbach's Alpha Coefficient to test questionnaire reliability. Questionnaires were administered to them with the help of two trained research assistants. Data was analyzed using descriptive and inferential statistics with the help of SPSS Version 28. The descriptive statistics included frequency, percentage and mean while inferential statistics included regression and Pearson correlations. Data was presented in tables. The study concludes that procurement process management has a positive and significant influence on performance of manufacturing industry in Nairobi County, Kenya. In addition, the study concludes that supplier sourcing has a positive and significant influence on performance of manufacturing industry in Nairobi County, Kenya. Based on the findings, this study recommends that the management of manufacturing firms in Nairobi County should formulate and implement effective framework to ensure smooth procurement process. In addition, the management of manufacturing firms in Nairobi County should formulate and implement effective framework to ensure reliable supplier sourcing hence improving firm performance.

Keywords

Procurement practices, procurement process management, supplier sourcing

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INTRODUCTION

Procurement practices are the managerial actions undertaken to improve performance of the integrated supply chain (Linger, 2019). Procurement has seen a lot of growth leading to the formation of procurement related bodies such as the Kenya Institute of Supplies Management and the Chartered Institute of Purchasing and Supply. The supply chain has been directly linked to the overall company performance and this has therefore made procurement practices vital to company success. Procurement practices refer to the strategies of procuring or acquiring Products and services (McFalls, 2016). It can also be said that procurement practices are those managerial actions undertaken to enhance performance of the integrated supply chain. According to Mena, Van and Christopher (2018), procurement practices are key functions in the public sector as well as in private sector, since procurement process is generally a critical part of open spending in organizations. Procurement practices can be described as activities which involve procurement planning, procurement controls, procurement monitoring and training workforce (Makabira & Waiganjo, 2014).

The procurement process consist of three main phases, the identification phase which consist of notification of the need to purchase and this is done by either requisition issued by the stores or potential user or bill of materials issued by the drawing office. The second phase is the ordering phase. The requisition or bill of materials is checked for accuracy, and conformity to specification and purchase records to ensure whether it's a rebuy or new buy. If it's a rebuy a repeat order will be issued. However if it is a new buy a request for quotation is sent to possible suppliers, and a quotation will be received in response to the enquires. A purchase order is then issued to the vendor that gave the quotation. Thirdly there is the post ordering phase (Zhou & Benton, 2017).

The linkage of procurement to organizational performance in particular, makes the embracing of best practices important to present organizational success. Procurement is found to be practiced in many industries around the world (Hussein & Shale, 2014). The importance of procurement in an organization has made some organizations to improve procurement processes of new systems such as, e-procurement that relates well with the varied technologies of electronic commerce such as document imaging, workflow management, bulletin boards and e-mail enabling business process remodeling (Leiyan, 2016). Procurement practices enables the organization to procurement planning effectively, ethically practices procurement and best performance measurement in procurement activities. Procurement's integral role in a company's operations makes it the fulcrum for all stakeholders, customers, suppliers, subcontractors and service providers to effectively collaborate and build sustainability across the entire supply chain (Beamon, 2015). Institutional procurement practices can influence the market by shifting entire production lines, prodding production practices to move towards more sustainable operations. Sustainable procurement decisions can result in outcomes that provide benefits beyond the company (Photiades, 2017).

Statement of the Problem

Manufacturing is key sector in Kenya's economic development, in both its contribution to national output and exports, and for job creation. A vibrant manufacturing base leads to more research and development, innovation, productivity, exports, and middle-class jobs. Manufacturing helps raise living standards more than any other sector. Manufacturing generates more economic activity than other sectors. Manufacturing sector's contribution to the economy in Kenya was about 7.6105 % in 2020 (KNBS, 2021). Through the Big 4 Agenda, the current regime aims at increasing the contribution of the sector to GPD by 15% by the end of 2022.

Despite its industry contribution in the country, the country is facing deindustrialization due to various factors mainly taxation, high costs of power, and competition from imported products which are sometimes cheaper than products made in Kenya. Many manufacturing firms have relocated or restructured their operations opting to serve the local market through importing from low-cost manufacturing areas such as Egypt, South Africa and India therefore resulting in job losses (GoK, 2017). The manufacturing sector has been struggling to thrive and some key firms in the sector have closed operations due to unfavorable working conditions (Kungu, 2015). For example Sameer East Africa closed its Yana Tyres manufacturing factory in Nairobi, citing increased competition from cheaper imports. Other manufacturers who have shut down operations include Proctor and Gamble and everyday East Africa.

Statistics from World Bank show that manufacturers operating in Kenya registered stagnation and declining profits for the last five years due to a turbulent operating environment (World Bank, 2017). Manufacturing sector's contribution to the economy in Kenya was about 9.3% in 2016, 8.7% in 2017, 8.4% in 2018, 7.9% in 2019, and 7.6% in 2020 which is a downward trend (KNBS, 2021). Processes such as production forecasting, inventory management, and continuous process improvements are some of the practices that are not employed in Kenya and other African countries. Manufacturers that do not have well-established distribution channels usually have difficulty selling their products (Kariithi & Kihara, 2016).

There exist various studies on procurement practices and performance. Mokogi, Mairura and Ombui (2015) study on effect of procurement practices on performance of commercial state owned enterprises in Nairobi County revealed that buyer-supplier relationships, supplier selection procedures, organizational capacity and procurement process management practices had a strong impact on the performance of commercial state owned enterprises studied. Kipkemoi (2017) on how organizational performance is affected by procurement practices in East African Portland Cement Company Limited confirmed that procurement practices actually contribute to increased organizational performance. Aputo (2017) on effects of procurement functions on project performance in Non-Governmental Organizations in Nairobi County indicated that need assessment, supplier sourcing, contract management and inventory management affect performance. Karanja and Kiarie (2015) on influence of procurement practices on an organization's performance in the private sector in Kenya indicated that procurement practices, e-procurement and contract management influences organizational performance at private sectors. However, none of these studies was conducted in the manufacturing sector in Nairobi County, Kenya. This study sought to fill this research gap.

Specific Objectives of the Study

- i To determine effect of procurement process management on performance of manufacturing industry in Nairobi County, Kenya.
- ii To establish effect of supplier sourcing on performance of manufacturing industry in Nairobi County, Kenya.

LITERATURE REVIEW

Theoretical Review

Resource Based View Theory

The resource based view theory was developed by Barney (1991). Firm resources are the key primary determinants of its performance, and these may contribute to a sustainable competitive advantage of the firm. The Resource Based Theory is a method of analyzing and

identifying a firm's strategic advantages based on examining its distinct combination of assets, skills, capabilities and intangibles as an organization. The RBV's underlying premise is that a firm differs in fundamental ways because each firm possesses a "unique" bundle of resources-tangible and intangible assets and organizational capabilities to make use of those assets. Each organization develops competencies from the resources, and when developed effectively, the source of organizations competitive advantage (Pearce & Robinson, 2017).

Barney (1991) argue that certain characteristics can make resources sources of (sustained) competitive advantage. Resources should be valuable, rare, inimitable and non-substitutable. At the most basic level, the resource must be valuable and non-substitutable (Barney, 1991; Dierickx & Cool, 1989). For a resource to be valuable, it must enable the firm to conceive and implement strategies that improve its efficiency and effectiveness (Barney, 1991). A resource also must be rare among firm's current and potential competition. As long as the number of firms that possess a particular valuable resource is less than the number of firms needing this resource, a resource has the potential to generate a competitive advantage (Barney, 1991). A firm should focus its attention on internal analysis to access information about itself and the resources it already controls. This will enable the firm to obtain superior insights into the value of strategies it can implement with existing resources and into the potential of new resources acquired in the strategic factor market (Barney, 1986). Furthermore, there must be ex-post limits to competition (Peteraf, 1993): a resource must be difficult to imitate by competitors, because it is socially complex (Teece, 1997). Competitors also face difficulties in copying resources when the resource is causally ambiguous, fixed in supply and path dependent (Hart, 1995). Furthermore, the resources must be non-substitutable, which means that there cannot be strategically equivalent substitutes that enable the competitor to implement the same strategy. Peteraf (1993) state that resources should also be imperfectly mobile: resources should be intangible. Overall, the more intangible a resource, the more difficult it is to copy the resource and the longer its probable duration as a source of competitive advantage.

Orina (2015) noted that the capability of an organization is demonstrated in its potential and ability to compete. Every organization has actual and potential strengths and weaknesses and it is important to try to determine what they are and to distinguish one from the other. Therefore what a firm can do is not just a function of the opportunities it confronts but it also depends on what resources the organization can master. According to Tanguis (2015), Resource-based theory perceives the firm as a collection of assets or capabilities. In the modern economy, most of these assets and capabilities are intangible. Organizations with distinctive capabilities have attributes which others cannot replicate, even after they realize the benefit they offer to the organizations which originally possesses them. The theory is relevant to this study since it sought to establish procurement management as a process that requires adequate resources to enhance the performance of an organization.

Grey Theory

The grey theory was developed by Julong Deng (1982). The theory was developed on the basis of solving problems which involve uncertainties and aims at handling systems with unknown or incomplete information (Sternberg & Lubart, 1991). A grey system is a system which contains both known and uncertain unknowns. According to the theory, the information is classified into three categories (Deng, 1989). This classification depends on the degree of information obtained. It is said to be white when it is completely certain; black when it is totally unknown and grey when it is insufficient. According to Sternberg and Lubart (1991) in recent years, a fuzzy-based approach has been proposed to deal with the supplier selection problem under uncertainty, but the advantage of grey theory over fuzzy

theory is that grey theory also considers the condition of the fuzziness; in other words, grey theory can deal flexibly with the fuzziness situation.

According to grey theory, the buyer calculate a grey possibility degree between compared suppliers alternatives set and ideal referential supplier alternative to determine the ranking order of all alternatives of supplier and to select the ideal supplier based on grey numbers. The drawback of the method is that the negative ideal referential alternative is not considered to evaluate and rank the alternatives (Deng, 1989). Sometimes, the selected solution (candidate supplier) which has the minimum grey possibility degree from the ideal solution may also have a lower grey possibility degree from the negative ideal solution as compared to other alternatives.

In manufacturing industries the raw materials and component parts can equal up to 70% of the product cost. When a relatively few parts are procured externally, the total demand can be provided by only one supplier (Sternberg & Lubart, 1991). Such a sole sourcing scenario appears to be tenable especially in the last decade, which has seen an important shift in the sourcing strategy of many firms, moving from the old concept of having many suppliers to depend heavily on one supplier with which a long term win-win partnership. In this situation, the decision consists of selecting one supplier for one order to meet the total buyer's demand (Deng, 1989). Grey theory model is suitable to the decision-making on which supplier to source from. The most suitable supplier can be determined by grey relational analysis based on grey number.

Conceptual Framework

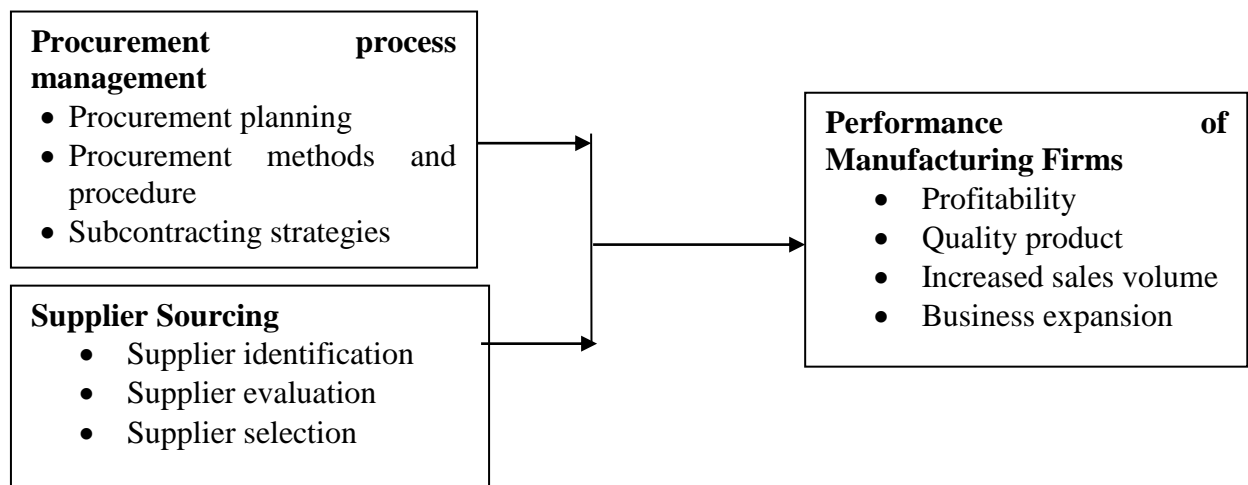


Figure 1: Conceptual Framework

Procurement Process Management

Procurement process management is a method by which items are purchased from external suppliers. The procurement management process involves managing the ordering, receipt, review and approval of items from suppliers (Ashock, 2017). According to Ezech (2012), procurement planning entails the identification of what needs to be procured, how the organizations needs can best be met, the scope of the goods, works or services required, what procurement strategies or methods to be deployed, setting the time frames, and the accountability for the full procurement process. Procurement need assessment helps to determine and address the needs, or gaps between current conditions and desired conditions or wants. This is important in procurement because it is an effective tool to identify appropriate interventions or solutions by clearly identifying the problem to ensure that finite resources (prior budget appropriations) are directed towards developing and implementing a feasible and applicable solution for identified procurement needs. Andrews (2014) noted that

quality plan lays out how the organization maintains the standards and requirements for a good procurement. As a component in procurement practices, it is vital to make a plan of the kind of quality that is expected by the purchasing firm.

Supplier Sourcing

Sourcing is defined as the processes and procedures by which the buyer seeks suppliers and determines policies relating to those who can most suitably meet the requirements of his undertakings (Lysons, 2018). Organizations are constantly under pressure to find ways to cut material and production costs through engaging in strategic supplier selection process and evaluation. Sourcing has been considered as one of the key drivers for organization's survival and development (Vijay & Kannan, 2016). In selecting the right suppliers, an organization establishes a set of evaluation criteria to be used for comparison of potential suppliers. Supplier selection is key to procurement process and represents a major opportunity for an organization to reduce costs, increase effectiveness and enhance customer satisfaction (Narasimhan, 2015). Supplier selection is seen as the most vital role of the organizational performance since the organization's suppliers can affect the price, quality, delivery reliability and availability of its products (Das & Buddress, 2017). Organizations feel that proper supplier selection would assist reduce product and material costs whilst ensuring a high degree of quality and after-sales services. An efficient appraisal should be in place for the successful supplier sourcing (Cheptora, Osoro, & Musau, 2018).

Performance of Manufacturing Industry

Performance measure entails both quantitative and qualitative assessment of the degree to which a firm achieves the general or specific objectives (Lysons & Gillingham, 2013). The concept of performance refers to how the directors and board management oversees achievement of organization goals. Traditional performance measures of firms is based on financial indicators such as profit, market share and cost (Lunga & Mbanje, 2015). However nowadays, both financial and non-financial indicators such as quality, delivery time, lead times, customer satisfaction among others, form the basis for performance measurement. In this study, both financial and non-financial indicators are used to measure the firms' performance, such as revenue generation and customer satisfaction (Rotich & Okello, 2015). Tangen (2013) states that measuring business performance ensures that the business adopts a long-term focus and increases efficiency in its resource allocation as well as its operations. Indeed, it is therefore important to measure the performance of a business to ensure sustainability and competitive advantage.

Empirical Review

Simatupan (2015) studied the effect of procurement methods on performance of companies in India. This study employed a descriptive research design. Questionnaires were used to collect data from a sample of 22 companies. Findings showed that there is a significant relationship between procurement methods and effective supply of goods and services. Hassan, Habib and Khalid (2014) studied the role of procurement methods on performance of chemical industries in Pakistan. The study sample was six industries. The study used secondary data collected from the industries' financial reports. The findings showed that there exists a significant relationship between procurement methods and performance. Buyer and supplier feel free and secured when right procurement methods are used.

Aladejebi and Adedeji (2015) investigated the effects of procurement planning on performance of agricultural manufacturing firm in Nigeria. Data was collected using questionnaires from 10 agricultural processing firms. Findings showed that there was positive relationship between procurement planning and agricultural firms' performance. The firms had a very weak functional Enterprise resource planning system used in procurement

process. Procurement planning was the primary function that set the stage for subsequent procurement activities. Ahmed (2019) studied effect of procurement practices on and organizational performance in Telecommunication Industry in Somalia. The study employed a descriptive research design. Questionnaires were used for data collection. Results showed that procurement planning significantly affects the organizational performance. Hallikas and Vilko (2017) examined the impact of procurement methods on firm performance in Uganda. The study employed a case research design. The study used secondary data collected for a period of five years. Findings revealed that procurement methods had a significant effect of firm performance. Macha (2021) examined effect of procurement planning on performance of procurement functions in public administration in Tanzania. The study employed a cross-sectional research design. Purposive sampling was used in sampling 67 respondents. Questionnaires were used to collect data. Findings showed that there was a positive and significant relationship between timely preparations of the procurement plan, quality planning, cost estimation and performance of procurements functions. Procurement planning significantly influenced procurement function.

Ekiyor, Amino, and Altan, (2019) sought to determine the effect of supplier selection criteria on operational performance in pharmacies. Simple random sampling was used in sampling 100 respondents. Data was collected using interview schedules. Findings showed that supplier selection criteria had a positive effect on operational performance. Westhuizen, and Ntshingila (2020) examined influence of supplier selection, supplier development and information sharing on firm performance in South Africa. The study adopted a descriptive survey design. The study sample included 300 business owners/managers. Questionnaires were used for data collection. Findings showed that there is a strong significant relationship between supplier selection and business performance. The ability of business owners/managers to select the right supplier influenced business performance to a very great extent.

Mukarumongi, Mulyungi, and Saleh (2018) sought to determine the effect of supplier evaluation on procurement performances the ministry of health, Rwanda. The study employed a descriptive research design. Targeted populace was 650 staff and stratified sampling was used to sample 230 staff. Questionnaires and interviews were used for data collection. Findings showed that suppliers' quality commitment, suppliers' financial capacity and suppliers' competence have a significant effect on performance of procurement function in the health ministry in Rwanda.

RESEARCH METHODOLOGY

The study adopted a descriptive research design. The target population was 50 large manufacturing companies in Nairobi County. The companies are from all 14 Sectors under Kenya Association of Manufacturers (KAM, 2022). The study targeted senior procurement, production, marketing, and accounting staff from each of the 50 companies. Therefore, the study target comprised of a total of 500 respondents. The sample size of staff was determined using Yamane 1967 formula to arrive at a sample of 220 respondents. The study adopted a stratified random sampling technique. Data was collected using questionnaires. Data was analyzed using descriptive and inferential statistics with the help of SPSS Version 28. The descriptive statistics included frequency, percentage and mean while inferential statistics included regression and Pearson correlations. A regression was conducted to get an in-depth understanding of how a change a unit change in the independent variable causes a change in the dependent variable.

RESEARCH FINDINGS

Descriptive Statistics

Procurement Process Management and Performance of Manufacturing Industry

The first specific objective of the study was to determine effect of procurement process management on performance of manufacturing industry in Nairobi County, Kenya. The respondents were requested to rate various statements on procurement process management and performance of manufacturing industry in Nairobi County, Kenya. The results were as presented in Table 1.

Table 1: Procurement Process Management and Firm Performance

| | Mean | Std. Dev. |
|---|-------|-----------|
| The firm prepares an annual Procurement plan | 3.965 | 0.783 |
| The firm involves every department in formulating annual procurement plans | 3.914 | 0.905 |
| The firm does annual prequalification of bidders | 3.899 | 0.834 |
| Awarding of all tenders is guided by the evaluation criteria | 3.884 | 0.872 |
| Procurement planning sets in motion the entire procurement processing the organization | 3.824 | 0.983 |
| Thorough needs assessment is undertaken by respective department heads for goods and services needed. | 3.818 | 0.782 |
| The choice of a procurement method is guided by the firm procurement policies | 3.786 | 0.897 |

From the results, the respondents agreed that the firm prepares an annual Procurement plan. This is shown by a mean of 3.965 (std. dv = 0.783). In addition, with a mean of 3.914 (std. dv = 0.905). The respondents agreed that the firm involves every department in formulating annual procurement plans. Further, the respondents agreed that the firm does annual prequalification of bidders. This is shown by a mean of 3.899 (std. dv = 0.834). The respondents also agreed that awarding of all tenders is guided by the evaluation criteria. This is shown by a mean of 3.884 (std. dv = 0.872). In addition, with a mean of 3.824 (std. dv = 0.983). The respondents agreed that procurement planning sets in motion the entire procurement processing the organization. The respondents agreed that thorough needs assessment is undertaken by respective department heads for goods and services needed. This is shown by a mean of 3.818 (std. dv = 0.782). The respondents also agreed that the choice of a procurement method is guided by the firm procurement policies. This is shown by a mean of 3.786 (std. dv = 0.897).

Supplier Sourcing and Performance of Manufacturing Industry

The second specific objective of the study was to establish effect of supplier sourcing on performance of manufacturing industry in Nairobi County, Kenya. The results were as presented in Table 2.

Table 4. 5: Supplier Sourcing and Performance of Manufacturing Industry

| | Mean | Std. Dev. |
|---|-------|-----------|
| The process of supplier evaluation is always determined by supplier ability to meet buyer objectives | 3.905 | 0.722 |
| The firm select suppliers that are ISO certified | 3.886 | 1.063 |
| Supplier selection is based on the suppliers' financial stability | 3.828 | 0.937 |
| Suppliers are evaluated based on their ability to achieve buyer objectives | 3.811 | 0.920 |
| Quality considerations are key in the selection of a supplier | 3.763 | 0.880 |
| Supplier identification is always guided by supplier product and service information | 3.675 | 0.897 |
| Supplier identification criteria ensure that only those suppliers with technical capability are selected. | 3.613 | 0.897 |

From the results, the respondents agreed that the process of supplier evaluation is always determined by supplier ability to meet buyer objectives. This is shown by a mean of 3.905 (std. dv = 0.722). In addition, with a mean of 3.886 (std. dv = 1.063). The respondents agreed that the firm select suppliers that are ISO certified. Further, the respondents agreed that supplier selection is based on the suppliers' financial stability. This is shown by a mean of 3.828 (std. dv = 0.937).

The respondents also agreed that suppliers are evaluated based on their ability to achieve buyer objectives. This is shown by a mean of 3.811 (std. dv = 0.920). In addition, with a mean of 3.763 (std. dv = 0.880). The respondents agreed that quality considerations are key in the selection of a supplier. The respondents agreed that supplier identification is always guided by supplier product and service information. This is shown by a mean of 3.675 (std. dv = 0.897). The respondents also agreed that supplier identification criteria ensure that only those suppliers with technical capability are selected. This is shown by a mean of 3.613 (std. dv = 0.897).

Performance of Manufacturing Industry

The respondents were requested to rate various statements on performance of manufacturing industry in Nairobi County, Kenya. The results were as presented in Table 3.

Table 3: Performance of Manufacturing Industry

| | Mean | Std. Dev. |
|--|-------|-----------|
| Profitability has improved over the years | 3.908 | 0.980 |
| In our organization there is improved product quality | 3.808 | 0.561 |
| Sales volume in our firm has improved over the years | 3.755 | 0.869 |
| Business diversification has greatly been improved | 3.727 | 0.935 |
| There are few customer complaints concerning the quality of our products | 3.707 | 0.788 |

From the results, the respondents agreed that profitability has improved over the years. This is shown by a mean of 3.908 (std. dv = 0.980). In addition, with a mean of 3.808 (std. dv = 0.561), the respondents agreed that in their organization there is improved product quality. Further, the respondents agreed that sales volume in their firm has improved over the years. This is shown by a mean of 3.755 (std. dv = 0.869). The respondents also agreed that business diversification has greatly been improved. This is shown by a mean of 3.727 (std. dv = 0.935). In addition, with a mean of 3.707 (std. dv = 0.788), the respondents agreed that there are few customer complaints concerning the quality of their products.

Inferential Statistics

Correlation Analysis

Table 4. 9: Correlations Coefficients

| | | Organization Performance | Procurement Management | Supplier Sourcing |
|--------------------------|---------------------|--------------------------|------------------------|-------------------|
| Organization Performance | Pearson Correlation | 1 | | |
| | Sig. (2-tailed) | | | |
| | N | 193 | | |
| Procurement Management | Pearson Correlation | .884 | 1 | |
| | Sig. (2-tailed) | .002 | | |
| | N | 193 | 193 | |
| Supplier Sourcing | Pearson Correlation | .773 | .097 | 1 |
| | Sig. (2-tailed) | .002 | .187 | |
| | N | 193 | 193 | 193 |

As illustrated in Table 4, procurement process management has a positive and significant association with the performance of manufacturing industry in Nairobi County, Kenya ($r=0.884$, p value $=0.000$). The p -value (0.000) was less than the significant level 0.05 hence making the association significant. The results are in agreement with Simatupan (2015) findings that procurement process management affects organization performance.

Further, the results show that supplier sourcing has a positive and significant influence on performance of manufacturing industry in Nairobi County, Kenya ($r=0.843$, p value $=0.000$). The p -value (0.000) was less than the significant level 0.05 hence making the association significant. The results are in agreement with the findings of Aladejebi and Adedeji (2015) that supplier sourcing has a positive and significant influence on organization performance.

Regression Analysis

Table 5: Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|--------------------|----------|-------------------|----------------------------|
| 1 | 0.929 ^a | 0.863 | 0.864 | 0.16355 |

The R squared was 0.861 and this implied that 86.1% of the changes in the independent variables (procurement process management, supplier sourcing, material control and logistics management) towards dependent variable would result to improvement of importance and 13.9% variance are other factors not inclusive in this study, but can also have effect on performance of manufacturing industry.

Table 6: Analysis of Variance

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1 | Regression | 75.222 | 1 | 18.806 | 571.61 | .001 ^b |
| | Residual | 6.875 | 192 | .0329 | | |
| | Total | 82.097 | 193 | | | |

The research used analysis of variance to determine if the model was good fit for the data. As depicted in table 6, the F calculated was 571.61 which is higher than the F critical value which was 2.415. Besides, the p value was 0.001 which is less than the significant level of 0.05. This implies that the model was a good fit for the data hence can be used to show the impact of independent variables (procurement process management, supplier sourcing, material control and logistics management) on the dependent variable (performance of manufacturing industry in Nairobi County, Kenya).

Table 7: Regression Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|--------------------------------|-----------------------------|------------|---------------------------|-------|-------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 0.325 | 0.091 | | 3.571 | 0.002 |
| | Procurement Process Management | 0.311 | 0.071 | 0.312 | 3.793 | 0.001 |
| | Supplier Sourcing | 0.304 | 0.085 | 0.305 | 3.576 | 0.002 |

a. Dependent Variable: Organization performance

The regression equation was;

$$Y = 0.325 + 0.311X_1 + 0.304X_2$$

The results revealed that procurement process management has a positive and significant influence on performance of manufacturing industry in Nairobi County, Kenya ($\beta_1=0.311$, p value $=0.001$). The p -value (0.001) was less than the significant level 0.05 hence making the relationship significant. The results are in agreement with Simatupan (2015) findings that procurement process management affects organization performance.

In addition, the results revealed that supplier sourcing positively and significantly influence the performance of manufacturing industry in Nairobi County, Kenya ($\beta_2 = 0.304$, p value = 0.002). The p -value (0.002) was less than the significant level 0.05 hence making the relationship significant. The results are in agreement with the findings of Aladejebi and Adedeji (2015) that supplier sourcing has a positive and significant influence on organization performance.

Conclusions

Findings revealed that procurement planning, procurement methods and procedure and subcontracting strategies influence performance of manufacturing industry in Nairobi County, Kenya. Through proper procurement planning, a firm can be sure of increasing its performance level in form of productivity, cost cutting, quality of goods and services delivered as well as deliveries being made on time. Procurement planning helps in controlling the stock levels in ensuring that the cost of handling and the cost of transport is maintained at optimum level.

Findings revealed that supplier identification, supplier evaluation and supplier selection influence performance of manufacturing industry in Nairobi County, Kenya. Effective supplier sourcing practices leads to a significant improvement in performance of manufacturing firms in Kenya. Supplier financial stability boost procurement performance function by minimizing costs associated with re-advertisements of tenders due to prequalified supplier's financial inability. Overall supplier capability in terms of product/service quality responsiveness guarantees customer satisfaction. The firms selected suppliers' who meets quality standards of the firm. Supplier identification ensures that only those who meet firm's specification are selected and process of supplier selection is determined by the financial stability of the supplier.

Recommendations

The manufacturing firms should adopt information technology in its procurement operations to support its procurement planning. This will facilitate information sharing with the suppliers and getting real time information on changing market trends. The procurement managers should establish means of managing procurement process to ensure better performance of the firms.

Suppliers of the manufacturing firms should develop technical abilities to provide high quality products or services. The manufacturing firms should establish suitable appraisal audit policies to ensure that they only work with competent suppliers. The procurement office should consider suppliers quality commitment to ensure that procured goods/services meet customers' needs and standards. Suppliers should also be evaluated based on their production capacity, storage capacity, and distribution to prevent run outs which may be due to low supplier ability.

Areas for Further Studies

The main purpose of the study was to determine the effect of procurement practices on performance of the manufacturing industry in Nairobi County, Kenya. However, this study was limited to the manufacturing industry in Nairobi County, Kenya hence the findings cannot be generalized to other industries in Kenya. Therefore the study recommends that further studies should be conducted on establish the effect of procurement practices on performance of other industries in Kenya. In addition, the study found that 86.3% of performance of manufacturing industry in Nairobi County, Kenya could be explained by procurement process management, supplier sourcing, material control and logistics

management. As such, further studies should be conducted to assess other factors that influence performance of manufacturing industry in Nairobi County, Kenya.

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