**International Journal of Management and Commerce Innovations** ISSN 2348-7585 (Online)
Vol. 6, Issue 1, pp: (642-648), Month: April - September 2018, Available at: www.researchpublish.com

# Influence of Suppliers Prequalification on Product Development on Registered Companies in Nairobi Securities Exchange

[1]Joyce Wangari Mbugua, [2]Dr. Muchelule Yusuf

College of Human Resource Development, Jomo Kenyatta University of Agriculture and Technology, Kenya

***Abstract:*** **Prequalification procurement is a risk management strategy by procuring entities to reduce suppliers' related risks such as failure to deliver supplies on time and safety needs, litigation costs due to failure or cancelation of tender, suppliers' insolvency, technical competences as well as resource capabilities. Understanding supplier performance can both prevent problems and facilitate performance improvement. The main objective of this study was to establish the Influence of Suppliers Prequalification's on Product Development on Registered Companies in Nairobi Securities Exchange. The study adopted a descriptive design. The target population of the study was 172 employees comprising of senior managers, middle-level managers and support staff working in the Registered Companies in Nairobi Securities Exchange. This research study used a stratified random sampling method to select 30% of the targeted respondents giving a sample size of 69 respondents. The study used questionnaires to collect primary data. Quantitative data were analyzed by descriptive statistics using statistical package for social sciences (SPSS V 21.0) while content analysis was used for the qualitative data. Also, a multivariate regression model was applied to determine the relative importance of each of the four variables concerning product development. The study found out that product assessment affected product development to a great extent mainly through quality level/ quality management policy, environmental, ethics and occupational health and safety policies. Capacity assessment affected product development to a very great extent through aspects such as financial capability and technical capability The study recommended that companies should clearly indicate the criteria they use to determine the capacity of the suppliers whether its financial capability, technical capability, human resource or process control capability as this helps the company know whether the supplier can guarantee sustained continuity of supply for future prequalification's.**

***Keywords:*** **Supplier quality management, Prequalification, Purchasing, Supplier rating.**

## 1. INTRODUCTION

The concept of pre-qualification of suppliers in the procurement function is a strategic activity in public institutions in Kenya; it fosters competition in contracting, acquisition and disposal of goods and services. [5] defines prequalification as the process to evaluate supplier's ability to complete a contract bidding process using specific criteria such as supplier's reputation, past performance, financial stability, current workload, research and development resources, technical capacity and decision making to conclude the qualification of the firm. Procurement System in Kenya by the [16] revealed that Public Procurement and Disposal Act and the Regulations established procuring entities were allowed to apply pre-qualification procedure from which quotations were raised for a potential supplier in procurement contracts. Procuring Entities (PEs) were however required to ensure a "fair and equal rotation" of the supplier. However, the concept of "fair and equal rotation" was not adequately explained and illustrated, and may, therefore, result in misinterpretation among the PEs. Further, the report revealed that the procuring entity has the mandate to register contractors and to maintain registers to categorize these depending on capacity and qualifications.

One of the main factors limiting Africa's economic development is poor procurement planning; it's been clear that many African countries have already given insufficient concentration to the appropriate administration of resources [2]. A competent government procurement structure is fundamental to the development of African economies and is an accurate

reflection of their will to utilize public funds [11]. The adoption of a new procurement structure will enhance precision and responsibility in measuring and lastly it boost s public trust in their procurement service. The widespread application of internet technologies within the framework of the procurement process, whether as a global source of information or for networking with external partners, poses new challenges: the reorganization and optimization of existing structures and processes are often inevitable. Therefore, the success of a company is determined to a greater Pre-qualification of suppliers is one among many initiatives aimed at fostering competition and at the same time eliminating incompetent players.

Many African nations have adopted procedures over the years to decentralize government functions in progress development and management collectively, and this two approaches in the 1980s were accepted [12]. In the 1990s, public procurement systems had become conventional with public procurement standards and profitability and were the norm among governments and benefactor shareholders [1]. The procurement task has become more involved, and the need for sourcing of reliable and dependable suppliers has become more critical than ever before. The search for an acceptable supplier can be greatly assisted by adopting a systematic approach to supplier appraisal and evaluation.

## 2. EMPIRICAL REVIEW

A considerable number of conceptual and empirical articles on supplier selection have appeared (an exhaustive review was done by [19]. [8] Examines the issues on supplier selection between buyers and suppliers for strategic partnerships in the USA. [18] Investigate the extent to which manufacturers use supplier selection criteria and supplier involvement, and they provide empirical evidence showing that supplier selection criteria have a positive impact on performance. The literature on supplier selection is extensive; however, specific studies on the chair manufacturing are needed for understanding industry-specific issues. [18] Investigate the extent to which manufacturers use supplier selection criteria and supplier involvement, and they provide empirical evidence showing that supplier selection criteria have a positive impact on performance.

[10] Indicated that research studies have revealed that supplier involvement in the design process is not widely practiced. Their study discussed the lack of an appropriate customer-supplier interface to assess the suitability of suppliers concerning design criteria. The paper proposed a mechanism for evaluating supplier involvement during product development. The assessment tool included four types of indices to measure supplier involvement in design, namely: satisfaction index, flexibility index, risk index, and confidence index. These indices measure the extent to which both the customer requirements and the supplier capabilities match or mismatch and therefore reflect the potential or risk of signing a project contract.

[7] Highlights the importance of suppliers or vendors as he calls it stating that vendor cooperation in a firm is vital as they can recommend changes in materials or parts which maybe acceptable and this may lead to substantial reduction in production costs. The supplier's production line is, in reality, an adjunct to the manufactures production line, which permits blending of production processes and often can be suitably integrated. Providing suppliers with clear, concise quality, performance and reliability requirements can thus, very often, develop buyer-supplier understanding, cooperation, and action. To have it operating as such under a vendor-vendee cooperation programme, the purchasing department can bring about an integrated production effort, and in the ultimate analysis purchasing profits come from such mutual understanding, and subsequent cooperation and actions with this are implemented with closest possible team works and sincerity.

According to [12] suppliers should concentrate on quality issues first- especially the ability to meet customers order requirements – followed by continuous improvement and innovation efforts. Importantly, while not wholly ignoring pricing issues, suppliers may want to place less emphasis' on the price when attempting to secure and retain customers.

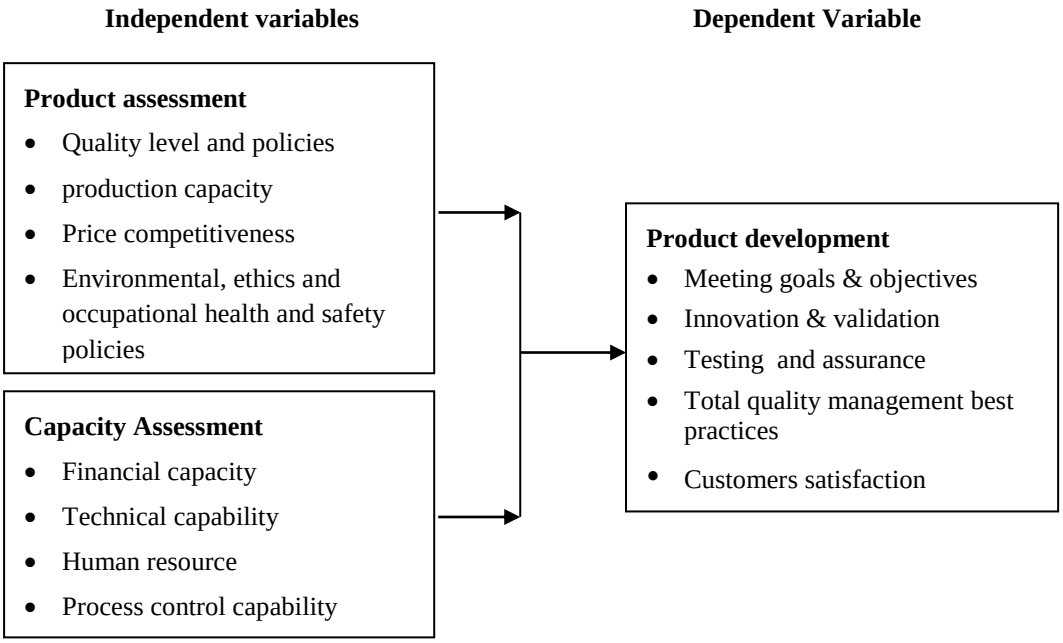
Many of the aspects of suppliers prequalification are neatly summarized by [4] as the seven C's this are competency, capacity, commitment, control systems, cost, consistency, culture, clean suppliers and purchasers, and communication, sadly some of the suppliers are confused, complicated, complacent, comedians and contradictory. [4] goes on to state that, having established that the supplier has the appropriate attributes to be a competent supplier, the next step is to define some contingent system of weighting the seven C's relative to each other and their impact on the business and offers the procurement targeting matrix.

[3] Did a study on the importance of selection and evaluation of the supplier in purchasing management. The paper demonstrates how vital purchasing management is today because the profit potential of effective management of the purchasing and supply activities is enormous compared with other practical management alternatives. The procurement

process has many significant tasks. One of the most crucial is the selection of the right supplier. The right supplier provides the right quality of materials, on time, at the right price, and the right level of service. Any purchasing is only as good as the sources (suppliers) that it buys from. Purchasing managers can choose different purchasing and sourcing strategies, which help them to make the best decision.

[13] Investigated the importance of the supplier management process in the quality of the final product. A methodology was developed to analyze the variables involved in the supplier management process, and it is illustrated with a case study of the chair manufacturing industry. Research results indicated that the supplier selection process appears to be the most significant variable as it helps in achieving high quality products and customer satisfaction. This paper shows the different analytical steps that arise naturally in the systematic categorization of variables for supplier management. Nine variables related to the supplier selection process were analysed. Each of these variables was then evaluated through an experimental design using statistical information based on three factors, namely, quality, cost, and productivity.

## 3. CONCEPTUAL FRAMEWORK




## 4. SUMMARY AND CRITIQUE OF EXISTING LITERATURE

Prequalification of suppliers can be challenging, costly, inefficient, and inconsistent. From an analytics perspective, many approaches are inadequate and unable to provide the insight needed to drive better decision making and performance improvement. They tend to deliver after-the-fact results rather than identifying causes of performance issues, without which, improvements are difficult to operate. Understanding supplier performance can both prevent problems and facilitate performance improvement [15]. Different supplier's prequalification perspectives are complementary and overlapping and sometimes lead to contradictory results. As a consequence, people in the buying company representing various departments and aspects may provide inconsistent feedback. These conditions make it difficult for the supplier to prioritize among alternative opportunities for performance enhancement [17].

However, giving uniform control signals to a supplier based on a single and aggregated evaluation grade is not a suitable approach since multiple perspectives reveal a variety of performance development potentials. Unlike the traditional single criterion nowadays the selection criteria are multifaceted by way of incorporating multiple decision makers with numerous and complex attributes via models with both cardinal and ordinal preferences. Previous studies focus on global supplier selection procedure [6] with highly technological or automated companies [5] in the context of small and medium enterprise [17], or a broader view on supply chain management [4] and a strategically collaborative alliance between buyer-supplier relationship and performance improvement [20].

[9] In his study found that there is a positive correlation between quality management and quality performance. However, the impact of supplier quality management has not been given the attention it deserves. The information known about this issue is primarily derived from anecdotal evidence because many researchers and organizations have devoted their time to

the management of the quality of finished goods than to supplier quality management forgetting the fact that the quality offered by initial suppliers primarily influence the quality of the finished right. This study thus will seek to analyze the Influence of Prequalifications of Suppliers on Product Development on Registered Companies in Nairobi Securities Exchange.

## 5. RESEARCH METHODOLOGY

The descriptive study design was used. The population of the study was 172 respondents comprising of senior managers, middle-level managers and support staff working in the Registered Companies in Nairobi Securities Exchange. Stratified random sampling was used basing the strata on the various management levels. [14], to obtain reliable information and for generalization to take place, a sample of 30% of the target population was sufficient, and so 40% was considered to be even better. The study, therefore, selected 69 respondents from procurement staff in Registered Companies in Nairobi Securities Exchange. The questionnaires were preferred in this study because respondents of the study were literate and quite able to answer questions asked adequately.

The researcher also used inferential statistics through correlation and regression. Regression analysis was used to establish the relationship between the independent and dependent variables with a regression model as stated below.

The model specification is as follows; $Y=\alpha+\beta1X1+\beta2X2+\varepsilon$

Where;

Y= Product development

X1= Product assessment

X2= Capacity Assessment

$\varepsilon$ = Error term

$\beta$=coefficient of determination

$\alpha$= constant

## 6. RESULTS AND DISCUSSION

**Response Rate:**

From the findings, 55 out of 69 respondents filled in and returned the questionnaire contributing to 79.7%. Those that did not respond contributed to 20.3%. The response rate was good and representative and conforms to [14] stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good, and a response rate of 70% and over is excellent. This commendable response rate was made a reality after the study engaged research assistants to administer the questionnaires. This response rate is adequate for analysis and reporting.

### 6.1 Product Assessment:

The findings showed that majority of the respondents indicated that quality level/ quality management policy, environmental, ethics and occupational health and safety policies affected product development to a very great extent as expressed by a mean score of 4.590 and 4.723 respectively. Price competitiveness affected product development to a great extent as expressed by a mean score of 4.434. Product development was affected to a moderate extent by quantity analysis/ production capacity as expressed by a mean score of 3.418.

The respondents also indicated that they conduct product assessment through the quality level, frequent lab tests, capacity, environmental aspects, qualitative analysis, testing the quality of received raw material in line with specified quality parameters, sample analysis, and quality assurance check. They also revealed that their companies had quality assurance and control department to conduct the assessment with the main duty of ensuring that the products they made were of the highest quality and where any customer complaints about the product were resolved. These findings are in line with [10] arguments that adequate standard procedures of quality can define which supplier best meets high requirements. The supplier quality system should include both internal and external controls of the organization, from employee management to supplier management. They are also in line with [17] who says that the global suppliers' very competitive

low product prices and their increasing levels of quality have led textile/apparel companies to think that it is significantly cost-effective to partially or totally manufacture textile/apparel goods overseas. The ability of suppliers to influence customer satisfaction also makes measuring supplier quality essential to longer-term market success.

**6.2 Capacity Assessment:**

From the findings, the majority of the respondents (40%) indicated that capacity assessment affected product development to a very great extent. 25.5% said capacity assessment affected product development to a great extent. 18.2% reported to a moderate extent. 10.9% also replied to a little extent while 5.5% reported that capacity assessment affected product development to no extent.

The findings also show that, financial capability and technical capability as aspects of capacity assessment affected product development to a very great extent as expressed by a mean score of 4.531 and 4.571. Human resource affects product development to a great extent as represented by a mean score of 4.354. To a moderate extent, process control capability affects product development as represented by a mean score of 3.102. Buyers prefer suppliers to be reasonably profitable because they are interested in continuity and on-time delivery. A supplier with cash-flow problems will have difficulty paying their bills, and consequently in obtaining materials, their delivery times and possibly product quality will probably suffer. On-the-spot surveys of facilities and personnel by technical and commercial representatives of the purchaser are often carried out to in the prequalification stage - although sometimes it may be possible to eliminate this by a supplier's reputation, as obtained from word of mouth and published information.

**6.3 Product Development:**

The findings showed that number of new products launched, number of existing products improved and product innovation have improved over the last five years as expressed by a mean score of 3.5408, 4.2755 and 3.6633 respectively. It was also evident that cycle times have improved for the previous five years as revealed by a mean score of 3.5204. The respondents also suggested that gathering as much information as possible from end users and using it to improve or coming up with new products, conducting market research and resource mobilization, acquiring more modern machinery and training on more modern and efficient technique of manufacturing cables and enhancing participation of all employees through involvement in product development could be used by the company to improve in product development. They also said that investing in research would play a considerable role whereby they will be able to develop on their existing skills and knowledge, and that creation and financing of a research and development department would promote product development. Benchmarking, being up to date with market information on new trends, investing in new product development systems, having a documented procedure that specifies the process of improving product development, stakeholders to be involved and that ensures resources are availed for product development, and testing were proposed as ways that would improve product development.

**6.4 Correlation Results:**

The findings revealed that Supplier Selection Ethics have a positive and significant relationship with procurement performance, $\rho = 0.491$, $p = 0.001$ at 0.01 level of significance. This means that with an increase in Supplier Selection Ethics, there is 0.491 probability that procurement performance will increase. Further, Ethical Policies and Codes have a positive and significant relationship with procurement performance, $\rho = 0.440$, $p < 0.001$ at 0.01 level of significance such that there is a probability of 0.440 that procurement performance would increase with an increase in the implementation and use of Ethical Policies and Codes. Moreover, Procedural Justice Ethics was positively and significantly correlated with procurement performance, $\rho = 0.327$, $p = 0.011$ at 0.05 level of significance indicating that there is a probability of 0.327 that procurement performance will increase with an increase in the use of an implementation of Procedural Justice Ethics. Finally, Supplier Diversity Ethics have a positive and significant relationship with procurement performance, $\rho = 0.519$, $p < 0.001$ at 0.01 level of significance such that with increased use and implementation of Supplier Diversity Ethics, there is a probability of 0.519 that procurement performance will increase. Finally, the inter-factor relationships showed that there were significant and positive relationships. These findings show that the various factors complement each other for the benefit of increasing the level of procurement performance in the procurement department.

**6.5 Model Summary:**

The established model for the study was:

$Y = 1.351 + 0.722 X1 + 0.663 X2$

The regression equation above has established that taking all factors into account (product assessment, capacity assessment, information assessment and delivery assessment) constant at zero product developments among listed companies was 1.351. The findings presented also show that taking all other independent variables at zero, a unit increase in the product assessment would lead to a 0.722 increase in the scores of product developments and a unit increase in the scores of capacity assessment would lead to a 0.663 increase in the scores of product developments among listed companies. Overall, information assessment had the most significant effect on the product developments among construction companies, followed by product assessment, then capacity assessment while delivery assessment had the least impact on the product developments among listed companies. All the variables were significant ($p<0.05$).

## 7. CONCLUSION

The study concludes that product assessment affects product development of a company to a very great extent through aspects such as quality level/ quality management policy, environmental, ethics and occupational health, safety policies, price competitiveness and quantity analysis/ production capacity. Thus in analyzing effects of prequalification of the supplier on product development among construction companies, great emphasis needs to be placed on these aspects as they significantly influence product development and that the company conducted product assessment through the quality level, frequent lab tests, capacity, environmental elements and qualitative analysis. The study concluded that capacity assessment affected product development to a very great extent and that financial capability, technical capability, human resource and process control capability were aspects that influenced product development. The study further deduced that willingness to share sensitive information, communication system, desire to participate in new product development and willingness to participate value analyses were aspects that affected product development.

## REFERENCES

[1] Ansari, A. and Modarress, B. (1986). Just-in-time purchasing: problems and solutions, Journal of Purchasing and Materials Management, Vol. 22 No. 2, pp. 11-15.

[2] Boer, L. d., Labro, E., & Morlacchi, P. (2001). A Review of Methods Supporting Supplier Selection. European Journal of Purchasing and Supply Management, 7, 75-89.

[3] Bruno, Z. (2010). The Importance Of Selection And Evaluation Of The Supplier In Purchasing Management. Journal of Modelling in Management, Vol. 2, No. 2, pp. 131-142.

[4] Carr, A.S. and Pearson, J.N. (1999). Strategically Managed Buyer-supplier Relationships and Performance Outcomes, Journal of Operations Management, Vol. 17 No. 4, pp. 497-519

[5] Chan, F. T. S., and Chan, H.K. (2004). Development of the Supplier Selection Model: A Case Study in the Advanced Technology Industry. Journal of Engineering Manufacture, 218, 1807-1824.

[6] Chan, F. T. S., and Kumar, N.,. (2007). Global Supplier Development Considering Factors Using Fuzzy Extended AHP-Based Approach. Omega, 35, 417-431.

[7] Datta, A. (2008). Materials Management. India: Prentice Hall of India.

[8] Ellram, L. (2009). The Supplier Selection Decision in Strategic Partnerships, Journal of Purchasing and Materials Management, Fall, pp. 8-14.

[9] Flyn B, Schroeder R and Sakakibara (2010), Determinants of Quality Performance in high and low quality plants, Quality Management Journal pp 8-25

[10] Humphreys, P., Mak, K.L. and Yeung, C.M. (2008), A just-in-time evaluation strategy for international procurement, Supply Chain Management, Vol. 3 No. 4, pp. 175-86

[11] Kannan, V. and Tan, K. C. (2006). Supplier selection and assessment: their impact on business performance, Journal of Supply Chain Management, Vol.38, No.4, pp.11-21.

[12] Lysons, K. 2006. Purchasing and Supply Chain Management. Prentice Hall. ISBN 0-273-69438-3. 709 p.

[13] Marvin, D. and Gioconda, S. (2003). Performance measurement in strategic buyer-supplier relationships: The mediating role of socialization mechanisms", International Journal of Operations & Production Management, Vol. 28

[14] Mugenda, M., O., & Mugenda, G., A., (2003). Research methods: quantitative and qualitative approaches. Nairobi: Kenya. Laba-Graphics Services.

[15] Pauraj, A., Lado, A.A. & Chen, I. J. (2008). Inter-organizational Communication as a Relational Competency: Antecedents and Performance Outcomes in Collaborative Buyer-Supplier Relationships. Journal of Operations Management, 45–64.

[16] PPOA, (2009). Public Procurement and Disposal General Manual. Nairobi: Public Procurement Oversight Authority.

[17] Shahadat, K. (2003). Supplier Choice Criteria of Executing Agencies in Developing Country. International Journal of Public Sector Management, 16, 261-285.

[18] Vonderembse, M.A. & Tracey, M. (2010). The Impact of Supplier Selection Criteria and Supplier Involvement on Manufacturing Performance. Journal of Supply Chain Management, 35(3). 33-39.

[19] Weber, C.A., Current, J.R. and Benton, W.C. (2009), "Vendor selection criteria and methods", European Journal of Operational Research, Vol. 50, pp. 2-18.

[20] Yang, J., Wong, C.W.Y., Lai, K., and Ntoko, A.N. (2009). The Antecedents of Dyadic Quality Performance and its Effect on Buyer-Supplier Relationship Improvement. International Journal of Production Economics, 120, 243-251.