ROLE OF SUPPLIER RELATIONSHIP MANAGEMENT ON PROCUREMENT PERFORMANCE IN MANUFACTURING SECTOR IN KENYA: A CASE OF EAST AFRICAN BREWERIES

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ABSTRACT

Procurement services department is the key to success of any manufacturing sector in Kenya. However, the department face myriad of problems including high cost involved in maintenance of water tight procurement systems, guaranteeing supplier confidence, wild fluctuation of tag reads and lack of top management support leading to poor supply chain performance. The purpose of the study was to assess the integrative role of supplier relationship on procurement performance in manufacturing sector in Kenya. Companies are inclined to work with different suppliers in different ways. In commodity products, it is common to find an adversarial relationship mainly based on price between buyer and supplier. The study used the case of East African Breweries Ltd and focused on employees working in different departments at the Company. It adopted a descriptive research design which was appropriate because it involved collecting data in order to answer pertinent questions concerning the current status of subjects under study. The target population was 450 employees working in different departments who were directly involved in managing manufacturing activities in the Organization. The sampling frame was the Human Resource register at EABL. The sample size of 80 respondents was selected using stratified sampling technique. This technique was used since the population was not homogenous. Structured questionnaires containing both open ended and closed ended questions were used to collect primary data through a drop and pick later method. Each questionnaire was attached with an introduction letter which assured the respondents of the purpose of data collection and confidentiality. The questionnaires were filled by the respondents and collected by the researcher for analysis. A response rate of 83% was achieved and this was found to be adequate for the study. Prior to conducting actual data collection, a pilot study was carried out to test the validity and reliability of the data collection instrument. Validity test considered the accuracy as well as the meaningfulness of the references used. This was done through seeking expert opinion especially on the content as well as the format of the research instrument to ensure objectivity of study. Reliability test was done by pre-testing the questionnaire on some respondents from EABL who were not included in the final analysis. Cronbach alpha value of above 0.7 was achieved in all cases and therefore the instrument was regarded as reliable. Data collected was analyzed using SPSS version 23. Analysis of variance (ANOVA), correlation and regression analysis was done. Descriptive analyses such as frequencies and percentages were used to present quantitative data in form of frequency distribution tables and pie charts on major research questions while open ended questions were analyzed qualitatively, arranged thematically and presented on narrative form to draw conclusions and recommendations. The results of the study indicated that there is a positive relationship between the predictor variables and procurement performance. The relationship was significant apart from the relationship between organisational policy and

procurement performance. The results also indicated that lead time management contributes more to procurement performance, followed by organisational policy then ICT integration. Supplier integration contributed the lowest to procurement performance. These results will be helpful to EABL management to design appropriate policies and procedures that will reduce on supplier lead time so as to enhance on the procurement performance. To researchers, an empirical question as to whether supplier integration contributes to procurement performance need to be pursued further. Although the findings of this study may be replicated in other manufacturing companies, the study recommends that further research should be done on the same topic in other sectors of the economy for instance motor industry to determine the role of supplier relationship management on procurement performance.

Key Words: *Supplier integration, Organizational policy, ICT integration, Lead time, Procurement performance, Supplier relationship management*

INTRODUCTION

Supplier Relationship Management (SRM) is the discipline of strategically planning for, and managing, all interactions with third party organizations that supply goods and/or services to an organization in order to maximize the value of those interactions. SRM entails creating closer, more collaborative relationships with key suppliers in order to uncover and realize new value and reduce risk of failure. The immediate objective of SRM is to streamline and make more effective the sourcing processes between an enterprise and its suppliers. It is a strategic, enterprise-wide, long-term, multi-functional, dynamic approach to selecting suppliers of goods and services and managing them and the whole value network from raw materials to final customer use and disposal to continually reduce total ownership costs, manage risks, and improve performance - quality, responsiveness, reliability, and flexibility (Leftwich, Leftwich & Moore, 2004). SRM includes both business practices and software and is part of the information flow component of supply chain management (SCM). SRM practices create a common frame of reference to enable effective communication between an enterprise and suppliers who may use quite different business practices and terminology.

As a result, SRM increases the efficiency of processes associated with acquiring goods and services, managing inventory, and processing materials (Smith, 2005). SCMI (2008) also avers that SRM refers to any supplier-facing business practices which are enabled by collaborative software and which allow companies to work with their supplier base for mutual success. Primarily, SRM tools have been developed to reduce the total cost of ownership (TCO) for procured goods, while creating competitive advantage for an organization through deeper relationships with its suppliers. There are five elements that must be considered in SRM (Chen & Paulraj, 2003). First, the customer should work with a limited number of qualified suppliers. This action provides multiple benefits including: fewer suppliers to contact in case of orders given on

short notice; reduced inventory management costs; volume consolidation and quantity discounts; increased economies of scale based on order volume and the learning curve effect; reduced lead times due to dedicated capacity and work-in-process inventory from the suppliers (Chen & Paulraj, 2003). The creation of these links involves effort and trust.

Long-term strategic alliances are developed with a small core group of suppliers (Lambert & Cooper, 2000). Secondly, supplier contracts have increasingly become long-term, and more and more suppliers must provide customers with information regarding their processes, quality performance, and even cost structure. Through close relationships, supply chain partners are more willing to share risks and reward and maintain the relationship over a longer period of time (Chen & Paulraj, 2003). Supply chain relationships are typically long-term and are required to achieve strategic coordination. The anticipation of sharing risks and rewards across the chain affects long-term commitment of channel members (Lambert & Cooper, 2000). There is need for two-way interorganizational communication for successful supplier relationship. In order to jointly find solutions to material problems and design issues, buyers and suppliers must commit a greater amount of information and be willing to share sensitive design information (Chen & Paulraj, 2003). With recent advances in communications and information technology, firms have an opportunity for significant savings in logistics costs by coordinating the planning of the various stages of SCM. Cross-functional teams have been identified as important contributors to the success of such efforts as supplier selection and product design.

Expertise is required from various functions within and outside a firm in order to address the wide range of product and process related problems, so that team members can interact with their supplier counterparts (Chen & Paulraj, 2003). According to Lambert and Cooper (2000), the use of cross-functional teams would suggest more of a process approach. When these teams cross organizational boundaries, such as implant supplier personnel, the supply chain should be more integrated. Suppliers may be integrated in the new product development process. The involvement may range from giving minor design suggestions to being responsible for the complete development, design and engineering of a specific part of assembly. Extensive research has documented the benefits of integrating suppliers in the new product development process as well as business and strategic planning (Chen & Paulraj, 2003).

In America, there has been a relative decline in procurement performance of the manufacturing industry and as a result, its contribution to the total American GDP is less than half what it was two decades ago (Burt, Petcavage & Pinkerton, 2010). This was attributed to poor relationship between suppliers and manufacturing sectors leading to increased cost of production, resulting to the gross operating profit margin to fall from 10.5% in the year 2012 to 3.6% in the year 2013. The weakening global economic conditions are forcing organisations to reinvent their relations with customers and suppliers alike. Thus, costs must be lowered throughout the procurement process by focusing on value addition. Bottlenecks must be removed and performance measurements focus on supplier relationship management for players in the process; to achieve

win-win situations. The working principle is to create customer satisfaction at the end point of delivery and continuous improvement of process. For decades procurement performance has been attracting great attention from practitioners, academicians and researchers due to poor performance. Burt, et al. (2010) postulated that if quality and price are equal, then supplier should be selected solely on the basis of service. Service is seldom equal and in many cases it is a supplier's capabilities that are being purchased, not commodities.

According to World Bank (2013), procurement performance of manufacturing sectors in Nigeria has declined resulting to a decline in GDP from 9.8% achieved in the year 2009 to 9.6% achieved in the year 2013.The procurement costs as a percentage of total cost is 50-80% for manufacturing companies that develop, manufacture, trade and/or distribute goods. Supplier relationship and the impact on the supply chain can be substantial from the integration and implementation to the benefits and challenges procurement faces today. One thing is certain, suppliers' relationship will affect the future economy (Caldwell, Walker, Harland, Knight, Zheng, & Wakeley, 2005). Together with sustainability, strategic partnering is at the top of the corporate agenda of many global organizations and is seen as one of few remaining procurement topics that can still make a significant difference (Caldwell et al., 2005).

Deloitte's Procurement Performance Survey (2014) found increasing levels of supplier collaboration and restructuring of existing relationships among the top procurement levels. While in some industries 77% of procurement performance may be actively driven from innovation with suppliers, the vast majority rates the effectiveness of their strategic supplier collaborations as poor or mixed. The 2013 Kenya overview report from the World Bank confirms that an effective supplier relationship can contribute immensely to procurement performance and particularly be the cornerstone of attaining the Vision 2030 Strategy. There is very limited research on the role of supplier relationship management on procurement performance. Studies carried out in Kenya focused on other areas of procurement and logistics. Muhia and Afande (2015) studied the role of adoption of e-procurement strategy on procurement performance of state corporations in Kenya by focusing on Kenya Revenue Authority. Maraka, Kibet and Iravo (2015) studied the effect of SRM on the performance of organisations in selected sugar companies in Western Kenya.

Owuor, Muma, Kiruri and Karanja (2015) studied the effects of strategic SRM on internal operational performance of manufacturing firms by focusing on EABL. Nyamasege and Biraori (2015) studied the effect of SRM on the effectiveness of Supply Chain Management in Kenya Public Sector – Ministry of Finance. Oyando, Kibet and Musiega (2014) analysed the factors that affect performance of procurement department in public sector by considering County Government of Kakamega. Chimwani, Iravo and Tirimba (2014) studied the factors influencing procurement performance in the Kenyan Public Sector with a special focus on State Law Office. Cheruiyot (2013) studied the impact of integrated supply chain on performance at Kenya Tea Development Agency.

STATEMENT OF THE PROBLEM

Manufacturing sector is lost immensely due to lack of benefit from the research and development initiatives conducted by the suppliers concerning the supplies (Muhia & Afande, 2015). Effective supplier relationship management requires an enterprise-wide analysis of what activities to engage in with each supplier. The common practice of implementing a "one size fits all" approach to managing suppliers can stretch resources and limit the potential value that can be derived from strategic supplier relationships. Managing supplier relationships used to be a zero sum game (0%). Most companies focused on short terms goals where price was the main focus. Bullying suppliers were commonplace in some organizations. Employees took great pride in "facing down suppliers" and relationships were viewed on "how much money we will make". However, with the increase in outsourcing and volatility in commodities, supplier relationship management (SRM) has moved to the forefront of organizational strategy. Companies are spending increased time on their selection criteria and determining clear best practices to manage partner relationships. However, few companies have mastered supplier relationship management. SRM is in its infancy.

Yet SRM plays an important role in the reduction of costs and the optimization of performance in industrial enterprises. The short term objectives of SRM are primarily to increase productivity and reduce inventory and cycle time. The long term objectives are to increase market share and profits for all members of the supply chain. SRM ultimately lead to enhanced procurement performance (Kilpatrick, 2000). Many manufacturers lack a proper understanding of SRM techniques. Consequently, many manufacturers experience a wide range of procurement and overall business problems which erode the suppliers' confidence and thwart business relationships. As a result of such challenges, a mismatch between supplier relationships and procurement performance is eminent. World Bank, (2013) observed that procurement performance of manufacturing sector firms in Nigeria has declined resulting to a decline in GDP from 9.8 % achieved in the year 2009 to 9.6% achieved in the year 2013. Deloitte's Procurement Performance Survey (2014) found increasing levels of supplier collaboration and restructuring of existing relationships among the top procurement levels. While in some industries 77% of procurement performance may be actively driven from innovation with suppliers, the vast majority rates the effectiveness of their strategic supplier collaborations as poor or mixed.

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OBJECTIVES OF THE STUDY

The general objective of the study was to assess the role of supplier relationship management on procurement performance in manufacturing sector in Kenya.

SPECIFIC OBJECTIVES

1. To determine the effect of supplier integration on the procurement performance of EABL.
2. To assess the effects of organizational policy on the procurement performance of EABL.
3. To establish the effects of ICT integration on the procurement performance of EABL.
4. To find out the effects of lead time affect on the procurement performance of EABL.

THEORETICAL REVIEW

Organisational Theory

An organization, by its most basic definition, is an assembly of people working together to achieve common objectives through a division of labor. An organization provides a means of using individual strengths such as suppliers' expertise within a group to achieve more than can be accomplished by the aggregate efforts of group members working individually. This theory therefore supports supplier collaborative relationship with buyer to achieve customer satisfaction for example reduced cost and improved quality. Business organizations are formed to deliver goods or services to consumers in such a manner that they can realize a profit at the conclusion of the transaction. As Jeffrey (2000) summarized in New Directions for Organization Theory, organizational theory studies provide an interdisciplinary focus on the effect of social organizations on the behavior and attitudes of individuals within them, the effects of individual characteristics and action on organization, the performance, success, and survival of organizations, the mutual effects of environments, including resource and task, political, and cultural environments on organizations. Different organizations adopt different strategies such as

supplier integration in reaction to changes in its competitive circumstances, structural design, and experiences.

Resource Dependence Theory

The procurement of external resources is an important tenet of both the strategic and tactical management of any company. Resource Dependence Theory has implications in the procurement effectiveness of the buying firms especially in tapping into the relationship with suppliers as their important and dependable partners. Thus this theory props up the notion of supplier development and proposes that actors lacking in essential resources will seek to establish relationships with others in order to obtain needed resources (Hillman, Withers, & Collins, 2009). Just like buyer will depend on suppliers for external resources and sellers on buyers for precious markets. Also, organizations attempt to alter their dependence relationships by minimizing their own dependence or by increasing the dependence of other organizations on them. Within this perspective, organizations are viewed as coalitions alerting their structure and patterns of behaviour to acquire and maintain needed external resources. Acquiring the external resources needed by an organization comes by decreasing the organization's dependence on others and/or by increasing other's dependency on it, that is, modifying an organization's power with other organizations (Davis & Cobb, 2010).

Transaction Cost Economies Theory

The vital commitment of Transaction cost economics to organization theory, resulted in a wide range of empirical contributions. Transaction Cost Economics (TCE) inspects how business partners who collaborate with each other shield one another from harmful subsidiary with differing relationships. It has been the most important new institutional theory which puts the accentuation on the decision on the sourcing predicament, if to outsource or not. The sourcing situation of a firm is likewise described as the make-or-buy decision of a firm (Christopher, 2009). The two primary drivers of Transaction Cost Economics are uncertainty caused by the external environment and costs, which consist of Coordination costs and Transaction costs (Fink 2006).

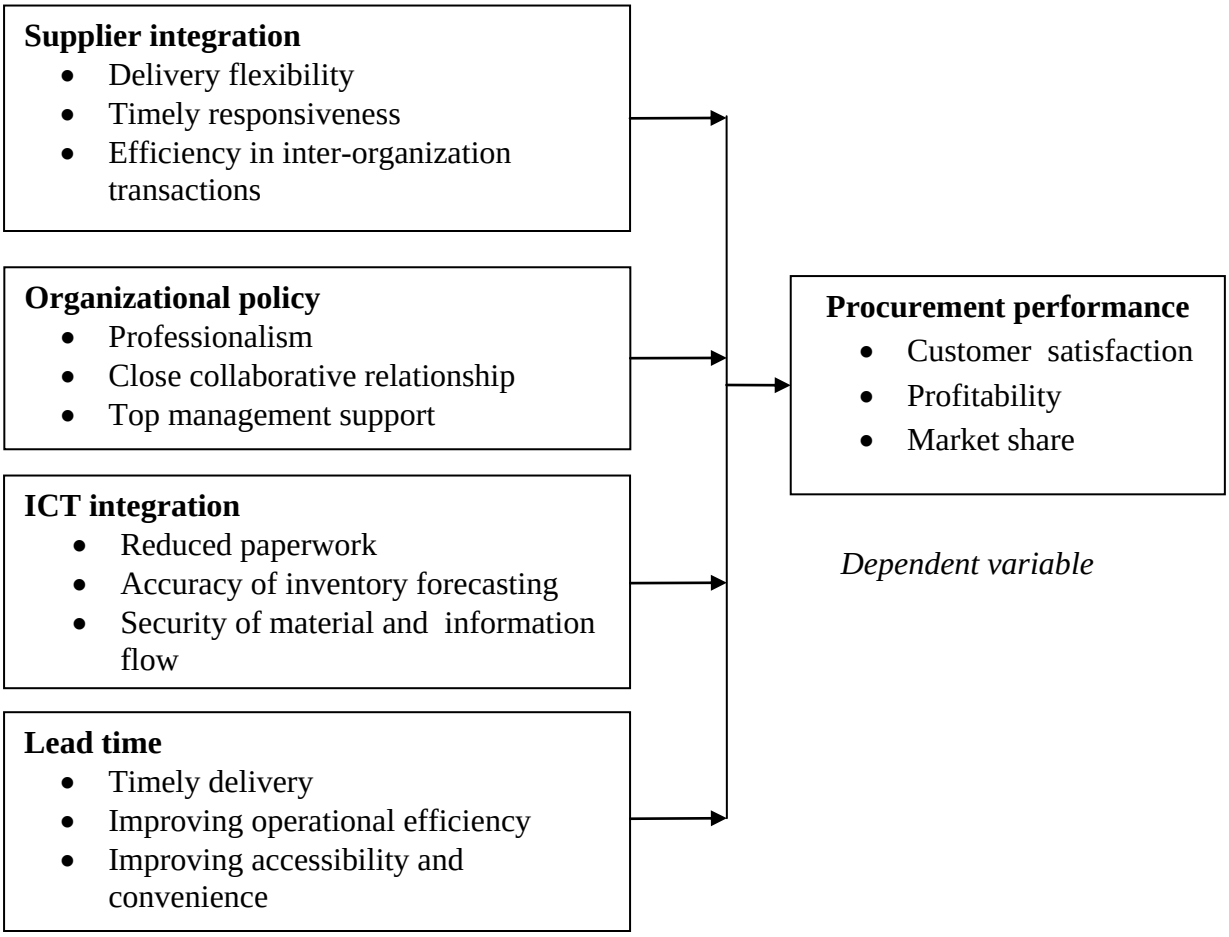
Resource Based View Theory

The source of an organization competitive advantage lies mainly in how it exploits its distinctive internal resources and competence by setting strategic objectives based on what they enable it to (David, 2011). The resource based approach starts with the organizations strengths and seeks an environment that will enable it exploit them by changing environments to suit what it does best rather than changing what it does best to fit the environment. One of the key insights of the resource based view is that not all organizational resources are a potential source of competitive advantage (Hilt, 2011). However, in order to be competitive, resources must be valuable by being capable of creating customers value allowing the firms to implement strategies that will

enable it to meet customers' needs more efficiently and effectively, rare and in high demand, difficult for competitors to imitate and difficult for competitors to substitute.

In effects to ICT integration, Sulastri (2006) found that RBV is useful by employing various strategies in controlling inventories in the organization through optimal utilization and allocation to be more competitive by ensuring security and addressing consumer privacy concerns, thus bolstering the overall supply chain performance similarly, RBV also uses techniques such as value analysis to study the functions of material components or systems to identify area of unnecessary costs as it forms a key component of an inventory control strategy that minimizes costs such systems to the bottom line (Husnah, 2013). In addition, RBV exploits supplier led approach through creating a challenge for logistics service firms to learn how to exploit the new machinery consumables or processes scale intensive approach through use of RFID system where advantage is gained from economies of scale.

CONCEPTUAL FRAMEWORK



Supplier Integration

Supplier integration can range from a simple consultation for a specific feature in a product to making the supplier fully responsible for the development of the component, process or system that will be delivered to the buyer (Ragatz et al., 2002). Collaborating with suppliers has generally been seen as highly positive for the firm's ability to innovate, partly because of the resources and information the firm could extract from the supplier. According to Un et al. (2010), collaboration with suppliers offer only limited new knowledge, because these often act in the same market as the firm. The information of the supplier and the buyer might therefore be the same, or at least similar. Nevertheless, the supplier's knowledge is something that can be very important for the firm. As the supplier has another set of skills, this might be a resource for the firm to use. Un et al. (2010) also state that even if the knowledge of the suppliers is limited, it is easier to access this knowledge than the knowledge of other actors in the supply chain. The supplier also supports innovations more than other actors, due to the combination of common goals and complementary capabilities between the supplier and the firm.

A study by Wynstra & Weggeman (2001), states that integrating suppliers leads to lower risk, as the risk is shared between the two firms (supplier and buyer), the firm can move faster into new markets, and also gaining new resources. If the information and knowledge are shared to a higher extent between firms, the quality of the product will be higher than if the information and knowledge exchange were to be poor. Lau et al. (2010) conclude in their research that suppliers might not want to expose their knowledge and resources and thus not be willing to share all valuable information. By only delivering the required information, the innovation process might be disturbed, which will probably lead to less innovative products and lower performance (Lau et al., 2010). This is a fairly short-term thinking by the supplier, as his success increases with the success of the buying firm (Un et al., 2010). Lau et al. (2010) have divided (based on Frohlich & Westbrook, 2001, IMSS II Research Network, 2013-05-30 and Narasimhan & Kim, 2002) integration that can benefit the new product development and the innovativeness of a firm into information sharing and product co-development. For the sake of measuring the construct of information sharing it was divided into four more or less shared parts: production plans, inventory mix, technological information, and marketing information. They also divided co-development into three parts: joint product design, joint process engineering, and joint production operations.

With the increase in outsourcing and the growth in world trade, product quality is increasingly an important factor. Many companies in the pet food, toy and dairy industry are still reeling from recent quality scandals in China and other parts of Asia. These scandals have put increased pressure on companies, as consumers are progressively more concerned about product quality. These quality scandals of late, as well of those in the apparel industry over the past decade, have highlighted the importance of managing relationships and the importance of supplier tracking and auditing. The days where companies could plead "we don't have control over our suppliers"

are gone. Environmental concerns and an increased scrutiny of labour practices also are demanding improved supplier relationships. The global markets offer a variety of products of different quality and cost. As a result, companies are always competing and trying to reduce costs and improve quality. Customers look for more choices, better service, higher quality, and fast delivery. The relationship with customers has turned a strategic issue for today's companies.

A variety of benefits are attributable to supplier integration into NPD (Petersen, Handfield & Ragatz, 2003). According to Petersen, et al. (2003), including suppliers on project teams adds information and expertise regarding new ideas and technology and helps to identify potential problems so they can be resolved early. ‘‘Sticky’’ information can be shared by transferring information from its point of origin to its point of use, thereby resulting in improved problem-solving activities. Suppliers also can benefit from ‘‘spill-over effects’’ that influence future research and development (R&D) activities downstream. Petersen, et al. also quotes Brown, Susan and Eisenhardt, Kathleen (1995) and avers that supplier integration provides outsourcing and external acquisition possibilities that reduce the internal complexity of projects and provides extra personnel to shorten the critical path for NPD projects. Supplier integration also helps coordinate communication and information exchange, thus reducing delays. It also helps eliminate rework because accessibility and production of parts can be considered early. Finally, it improves supplier relationships, which leads suppliers to internalize project concerns and thus allows for a better working relationship (Petersen, et al., 2003).

Organizational Policy

Previously, partner selection only focused on price, with value sometimes taking a backseat. Today, companies are spending increased time and resources to develop and implement policies such as a comprehensive supplier qualification process. Companies need to establish a strategic road map and clear selection criteria. For example, the selection criteria may include important components such as strategic vision, capability, capacity and environmental issues. Companies need to evaluate if potential suppliers meet their required standards. Furthermore, supplier selection is not just limited to procurement departments, and companies are increasingly making use of cross functional teams. Employing external agencies to monitor and track supplier relationships is also on the increase (Lin, Chuang, Liou, & Wu, 2009). Ensuring compliance, focusing on high risk areas, understanding suppliers’ operations and offering guidance and support when improvement is necessary or appropriate should ensure that the strategic and operational risks associated with unethical practices are minimized.

Organisations need to focus on ensuring compliance with their ethical code and the policies that it touches upon. The value of the transactions in the procurement process along with pressures to lower costs could result in bribery, corruption and other practices which could be deemed unethical. In the public sector where goods and services are funded by public expenditure, it is imperative that procurement operates ethically, with impartiality, transparency, and

professionalism. Manufacturing sectors that implements e-procurement systems should ensure that any new procedures that are established meet the same legal and policy obligations that govern all procurement. In addition, it will need to ensure that it adopts additional policies and standards covering the different procedures and risks associated with e-procurement. Ethical procurement best practice starts with the employees in procurement following an ethical code which dictates their behavior and actions while conducting business. Ethical procurement practices should be extended to all stakeholders in the procurement cycle. Ethical procurement should also include an understanding of suppliers' operations and the procurement professional should offer guidance and support when improvement is necessary or appropriate.

ICT Integration

In recent years, companies have seen technological advances in managing supplier relationships. The day of managing suppliers with spreadsheets are gone, and SRM is increasingly complex. Companies are demanding increased visibility. The need for real time information is on the increase. Companies are investing significant resources in managing suppliers and the use of supplier relationship software is becoming more common place (Ngai, Chau, & Chan, 2011). The use of information technology has turned companies need to utilize information technology to remain competitive. Its use in the supply allows transparency and more efficient collaboration. The global advancement of information technology allows companies to coordinate activities, to share information in real-time and to put into practice electronic commerce and supply chain technology (Patterson et al., 2003) by using the web to collaborate and to communicate with supply chain partners.

Lead Time

Rajaniemi (2012) defines lead time as the amount of time that elapses between when a process starts and when it is completed. Lead time is examined closely in manufacturing, as companies want to reduce the amount of time it takes to deliver products to the market. Lead time is broken into several components: preprocessing, processing and post processing. Preprocessing involves determining resource requirements and initiating the steps required to fill an order. Processing involves the actual manufacturing or creation of the order. Post processing involves delivery of products to the market. Manufacturing sectors need to look at each component and compare it against benchmarks to determine where slowdowns are occurring. One way to improve profitability is by reducing inventory lead time, or the amount of time that passes between your customer placing an order with your business and receiving their product. Customer satisfaction is crucial to keeping a business afloat. With a market full of competitors, customers can easily find another business that can satisfy their high standards for delivery, quality, and cost. A short inventory lead time can provide an advantage. In fact, trends have indicated that quality and delivery often surpass costs in terms of customer's values. And of course, a long and drawn out lead time means an over abundance of inventories, expedition costs, excessive overtime pay, and

inefficient use of resources. Additionally, a longer inventory lead time translates to more time that your inventory is sitting in your warehouse or store room. Excess inventory adds no value, and in fact is incurring cost. In fact, that product incurred cost before it even was stored in your inventory **(**Sweeney, 2009).

Procurement Performance

In today's world, companies require suppliers that are results orientated and are demanding increased speed from suppliers. Not all suppliers are equal and all suppliers need to be segmented. Segmentation is critical, as it will determine the importance of the partnership and how much time companies need to spend on building supplier relationships. All members of the supply chain must have clear accountability and each member of the team must be aware of his or her duties. Companies need to monitor compliance and implement and communicate clear Key Performance Indicators (KPIs). In today's high speed world, SRM is on the forefront of any successful company. SRM has changed significantly over the last couple of years, and suppliers are now seen as an extension of the business. Developments in the business environment have become much more difficult to anticipate due to the globalization of demand and supply markets, more demanding customers and consumers, shorter product life cycles, continuous pressure on costs and cash, and societal pressure regarding corporate social responsibility. As a result of outsourcing, procurement and supplier management have become more important and strategic.

Supplier Relation Management (SRM) is focused on joint value creation based on trust, open communication and collaboration with a limited number of key suppliers. Leveraging on supplier capabilities is mentioned as the most important objective of SRM. Organizations are aware that they don't have the means to finance all activities on their own. Activities that were always perceived as strong contributors to competitive advantage and were kept in-house (e.g. product development, manufacturing, services, etc.) are now qualified for outsourcing. Gaining access to unique knowledge, resources, capabilities, talent and ideas are an integral part of this key objective (Vatalis, Manoliadis, & Mavridis, 2012). The second most important objective is reducing cost. This would appear to conflict with the focus on value creation, but cost-cutting is still one of the key imperatives. The main difference with traditional approaches is that benefits are now realized and shared together with partners. This objective is also related to the low maturity level of SRM as a business process the business perceives procurement, and therefore SRM, primarily as a contributor to cost reduction.

Due to the globalization of supply chains, stronger manufacturing companies such as East African Breweries Limited are now aware that they must integrate and collaborate with suppliers to remain competitive and take the next step towards procurement excellence. Supplier management is not a new topic, but it has always been the 'stepchild' of the procurement function. KPIs like spend reductions were an important culprit here. Companies became rather proficient and mature in running strategic sourcing initiatives and created" money on the table".

After realizing the contracted savings, category team sand buyers jumped on the following sourcing initiative while neglecting the implementation and management.

RESEARCH METHODOLOGY

Research Design

This study adopted a descriptive survey design. Descriptive research design was used as it had merits such a researcher having no control over the variables and only reported what was happening. Descriptive design was found appropriate because it involved collecting data in order to answer pertinent questions concerning the current status of subjects under study (Mugenda & Mugenda, 2012). The research design provides facts and suggestions on major connections between the variables.

Population of the Study

The population of the study comprised of individuals conforming to some particular specifications. Specifically, target population comprises of an entire group of individuals whose the researcher has special interest on them and their research can be generalized. This study population forms a very important part of the research. The research targeted the different departments of the East African Breweries in Kenya. These were chosen because they were involved in making manufacturing decisions, evaluating supplier's performance, receiving and inspecting supplies and were the recipients of the goods and services procured. The target population was 450 possible respondents based on EABL Register (2015).

Sample Size and Sampling Techniques

The sampling frame used was the human resource register at EABL limited. This study adopted stratified sampling technique which is a sampling technique in which population where the sample was drawn from does not constitute a homogenous population. This is the case since the study had subgroups or strata which were heterogeneous in target population whose response was important in achieving the objectives of the study. The sample size was determined by Nasuirma (2000) formula which is expressed as follows:

$n= \{NC_V^2\}/\{C_V^2 + (N-1)\epsilon^2\}$

Where: n – is the sample size
N – is the target population (450)
Cv – is the coefficient of variation (take 0.5)
ϵ– is the tolerance of desired level of confidence, at 95% level (take 0.05)

Thus, $n= \{NC_V^2\}/\{C_V^2 + (N-1)\epsilon^2\}$
$= \{450 \text{ X } 0.5^2\}/\{0.5^2 + (450- 1)\ 0.05^2\}$
$= 112/1.4$
$= 80$ respondents.

Thus the study sample was 80 respondents. Respondents are selected in such a way that the sample consist of sub-groups. They are distributed across the various strata.

Data Collection

Structured questionnaires with both open-ended and close-ended questions were used in data collection that assisted the researcher to get reliable information by seeking opinion from the respondents as it is cheap, since the respondents are not geographically dispersed and are located in the same organization and adequate time is provided to give well thought answers. Questionnaires are generally fast and inexpensive with a wide assortment of statistical techniques available to the researcher. Since this was a descriptive research, it helps to identify and describe the variability in different phenomena through attitude, opinion and questionnaire of organizational practices. The questionnaires for the study were designed and distributed to the various respondents through hand delivery, as it is cheap since respondents are found within the same organization. They were provided with ample time to critically analyze their responses and deliver genuine information. These respondents were required to fill the questionnaires fully and submit them for further analysis. Self-administered questionnaires allow the participants to respond to questions by themselves at their own pace. They ease respondent's burden by giving them time to think through their responses. The data collected was then be tested for accuracy and reported in a tabular format. Prior to the actual study, the researcher carried out a pilot study to test for reliability and validity of the research instrument. Pre-testing was done to identify and change ambiguous questions as well as research techniques. Cronbach's Alpha test was used to increase accuracy as the inter-correlations among test items, and for internal consistency estimate in collecting data. The study established an alpha value of 0.7 which is the recommended Cronbach Alpha coefficient of 0.7 or 70% and above used to test the reliability of the questionnaire. The content validity was used for ensuring validity in this study.

Data Analysis and Presentation

The data collected was analyzed by use of both quantitative and the qualitative analysis process. Data from the closed and open-ended questionnaire was coded and analyzed with a statistical package for social science (SPSS) version 23. In order to test the level of significance of the findings, that is, to test the level of significance of the independent variables on the dependent variable at 5% level of significance, the study used ANOVA. Correlation was used to come up with a proper relationship between the variables involved. Regression analysis was highly used especially in analyzing a number of variables especially where there are both dependent and independent variables in order to have a concrete conclusion of the phenomenon being studied as shown below.

$$(y = \beta o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon)$$

Where:

y= Dependent variable (Procurement performance)

X_1=First independent variable (Supplier integration)

X_2= Second independent variable (Organisational Policy)

X_3= Third independent variable (ICT integration)

X_4= Fourth independent variable (lead time)

$\beta 1 - \beta 4$ = Regression coefficient for each independent variable and

ε −Random or stochastic term

Descriptive analysis such as frequencies and percentages were used to present qualitative data in form of frequency distribution tables and graphs such as bar charts and pie charts on major research questions to enable easier understanding and interpretation using inferential statistics while open ended questions were analyzed qualitatively, arranged thematically and presented on narrative form to draw conclusions and recommendations.

RESEARCH RESULTS

Majority of the respondents (60%) stated that procurement performance was adequately measured in their organization through identification of KPI's. Over 50% were in agreement with all the 5 statements on procurement performance. This is further proved by the average mean of 3.52 which indicates that on a scale of 1 to 5 respondents were in agreement with majority of the statements. The standard deviation of 1.42 indicates large variation in the responses on procurement performance.

On supplier integration, 65% of the respondents stated that supplier integration has an influence on procurement performance in their organization. Over 50% of them were in agreement with most of the 5 statements on supplier integration. This is further proved by the average mean of 3.51 which indicates that on a scale of 1 to 5, respondents were in agreement with most of the statements. The standard deviation of 1.42 indicates large variation in the responses on supplier integration.

With regard to organisational policy, 74% of the respondents stated that organizational policy has an influence on procurement performance in their organization. 50% of the respondents were in agreement with all the 5 statements on organizational policy. This is further proved by the average mean of 3.64 which indicates that on a scale of 1 to 5, respondents were in agreement with most of the statements. The standard deviation of 1.22 indicates large variation in the responses on organizational policy.

To determine the effect of ICT integration on procurement performance in the manufacturing sector in Kenya, 78% of the respondents stated that ICT integration has an influence on procurement performance in their organization. Over 50% of the respondents were in agreement

with all the 5 statements on ICT integration. This is further proved by the average mean of 3.51 which indicates that on a scale of 1 to 5, respondents were in agreement with most of the statements. The standard deviation of 1.40 indicates large variation in the responses on ICT integration.

On lead time, 64% of the respondents stated that lead time has an influence on procurement performance in their organization. Over 50% of the respondents were in agreement with all the 5 statements on lead time. This is further proved by the average mean of 3.65 which indicates that on a scale of 1 to 5, respondents were in agreement with most of the statements. The standard deviation of 1.32 indicates large variation in the responses on lead time.

Correlation Analysis

The correlation results indicated that there is a positive and significant association between all the independent variables and the dependent variable. This implies that an increase in the independent variables is associated with an increase in the dependent variable while a decrease in the independent variable is associated with a decrease in the dependent variable. The Correlation matrix also indicated that there was no multi-collinearity among the independent variables as no Pearson coefficient value exceeded 0.7. The value of 0.7 is the threshold for measurement of multi-collinearity and no Pearson correlation value greater than 0.7 was recorded between the predictor variables.

Table 1: Correlation Matrix

		Supplier integration	ICT integration	Lead-time	Organizational policy	Procurement Performance
supplier integration	Pearson Correlation	1				
	Sig. (2-tailed)					
ICT integration	Pearson Correlation	0.003	1			
	Sig. (2-tailed)	0.976				
Lead-time	Pearson Correlation	0.005	-0.032	1		
	Sig. (2-tailed)	0.965	0.777			
Organizational policy	Pearson Correlation	-0.036	0.211	0.139	1	
	Sig. (2-tailed)	0.754	0.06	0.218		
Procurement Performance	Pearson Correlation	.240*	.296**	.321**	.278*	1
	Sig. (2-tailed)	0.032	0.008	0.004	0.013	

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Regression Analysis

The study used a regression model to establish the relationship between the predictor variables (supplier integration, organizational policy, ICT integration and lead time) and the dependent variable which is procurement performance.

Table 2: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.535a	0.286	0.248	0.601

The regression results show that R was 0.535 which shows that the association between the predictor variables (supplier integration, organizational policy, ICT integration and lead time) and the dependent variable which is procurement performance was positive. The coefficient of determination also called R squared explains the percentage of variation in the dependent variable (procurement performance) that is explained by all the four independent variables. The coefficient of determination (R2) was 0.286. This means that the combined effect of the predictor variables explains 28.6% of the procurement performance of manufacturing firms.

Table 2: Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	10.833	4	2.708	7.508	.000
Residual	27.054	75	0.361		
Total	37.887	79			

The F value of 7.508 is significant at a significance value of 0.000 which is less than 0.05 at 5% level of significance. This shows that the overall model was significant. This shows that the combined effect of supplier integration, organizational policy, ICT integration and lead time were statistically significant in explaining procurement performance of manufacturing firms.

Table 3: Regression Coefficients

Variable	B	Std. Error	t	Sig.
(Constant)	0.009	0.668	0.014	0.989
Supplier integration	0.194	0.078	2.499	0.015
ICT integration	0.227	0.086	2.65	0.010
Lead time	0.316	0.103	3.055	0.003
Organizational policy	0.246	0.132	1.865	0.066

Procurement performance = 0.009 + 0.194 Supplier integration + 0.246 Organisational policy + 0.227 ICT integration + 0.316 Lead time. The results for regression of coefficients of the study shows that there is a positive relationship between supplier integration, organizational policy,

ICT integration and lead time and procurement performance as supported by beta coefficients of 0.194,0.246,0.227 and 0.316 respectively. This means that an increase in either of the variables will positively increase procurement performance. The analysis also yields results that show that all variables used in the study are statistically significant at 5% level of significance apart from organizational policy as the probability (p) values were 0.015, 0.066, 0.010 and 0.003 respectively which were not more than the conventional value of 0.05 for the significant variables but more than 0.05 for the insignificant variable. According to the regression equation established, taking all factors into account (supplier integration, organizational policy, ICT integration and lead time) constant at zero, procurement performance of manufacturing firms is supposed to be 0.009. The data findings analysed also shows that taking all other independent variables at zero, a unit increase in supplier integration leads to a 0.194 increase in procurement performance; a unit increase in ICT integration leads to a 0.227 increase in procurement performance, a unit increase in lead time management leads to a 0.316 increase in procurement performance and a unit increase in organisational policy leads to a 0.246 increase in procurement performance of manufacturing firms. This infers that lead time management contributes more to procurement performance, followed by organisational policy, then ICT integration and lastly supplier integration.

CONCLUSIONS

It can be concluded that supplier integration, ICT integration and lead time are very important aspects of supplier relationship management which leads to an improvement in procurement performance. The study also concluded that supplier integration, ICT integration and lead time are positively and significantly related to procurement performance and can be used to explain changes in procurement performance significantly. Collaborating with suppliers has generally been seen as highly positive for the firm's ability to innovate, partly because of the resources and information the firm could extract from the supplier.

RECOMMENDATIONS

The study recommended that in order for the manufacturing firms in Kenya to realize better procurement performance, emphasis should be made on supplier integration, ICT integration and lead time. Suppliers should be seen as an extension of the business. The firms should ensure integration of the information systems and also encourage electronic catalogues, provide delivery flexibility, ensure timely responsiveness and address environmental uncertainties in order to have better procurement performance. With regards to Organisational policy, the policies should promote interorganizational trust. The support and commitment from top management should be sought to ensure that the policies are institutionalized. These policies should be standardized to enhance consistency between the partner organisations.

Further, management should allocate appropriate resources to ensure implementation of the policies. Manufacturing Companies should take advantage of ICT to reduce paperwork and

improve the accuracy of inventory forecasting. More effective methods of service delivery may also be attained to improve accessibility, convenience and productivity. Materials and information flow throughout the supply chain network should be safeguarded. Manufacturing Companies should provide delivery flexibility to various destinations where customers are located, ensure timely responsiveness to consumer effective demands, improve efficiency of inter-organizational transactions, address environmental uncertainties and ensure preference concerns among customers.

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