

**SUPPLIER EVALUATION AND PERFORMANCE OF LARGE
FOOD AND BEVERAGE MANUFACTURING FIRMS IN
NAIROBI, KENYA**

By

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**A Research Project submitted in Partial Fulfillment of the
Requirements for the Degree of Master of Business Administration,
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DECLARATION

I declare that this research project is my original work and has never been submitted to any other university for assessment or award of a degree.

Signature.....

Date.....

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This project has been submitted for examination with my approval as The University supervisor.

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DEDICATION

To my late father Kamenya Morata who this study would have made so happy and mom Kerubo, my sons Brian, Gavin and Kamenya whose time I used for the study.

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I thank the Almighty God for the good health throughout the journey of this study .I also wish to acknowledge the lecturers at The University of Nairobi, School of Business and especially my supervisor Kariuki C. Ngugi for his unwavering guidance. My gratitude to my husband Peterson Gwaro for his moral and financial support not forgetting my friends for their encouragement. Finally I wish to thank the organizations that cooperated with me by filling the questionnaires. Thank you and God bless you all.

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ABSTRACT

This study was carried out to determine the relationship between supplier evaluation and performance in large food and beverage manufacturing firms in Nairobi City County. The study had three objectives, to establish the criteria used in evaluating suppliers, to establish the performance levels and determine the relationship between supplier evaluation and performance.

The research design adopted was the descriptive. The study targeted all the 46 food and beverage firms which were all sampled since it was a census. 27 successfully filled and returned the questionnaires that were used for analysis. The questionnaires were administered through drop and pick later method. Standard deviations and means were used to analyze objective one and two whereas correlation and regression analyses were used to determine the relationship between supplier evaluation and performance in large food and beverage manufacturing firms in Nairobi City County. The results are presented in tables.

The results show that food and beverage firms evaluate their suppliers. There is a positive relationship between performance and the supplier evaluation criteria. Environmental friendliness of the supplier, employee capabilities of the supplier and price factors are significant while financial stability, quality issues, supplier's organizational culture, production capacity of the supplier and preference and reservation are insignificant.

The researcher recommends that supplier evaluation should be practiced in food and beverage firms because it is associated with better performance at the same time other firms outside this sector should be studied to ascertain whether the trend holds. Further research could also be necessary in seeking to know why some criteria are insignificant.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Supplier evaluation is a field that continues to attract significant focus in supply chain management literature with effective evaluation and selection of suppliers considered to be one of the critical roles of procurement officers (Narasimhan et al., 2001). A number of parameters exist for the evaluation and selection of suppliers which include: quality, price, and on-time delivery (Ning Pi et al., 2005). According to Lysons et al., (2008) suppliers can be appraised on eight areas, namely: finance, production capacity, human resource, quality, performance, environmental and ethical considerations, and organizational structure. The appraisal criteria is summarized by Carter as the 'seven Cs' which represent: competency, capacity, commitment, control systems, cash resources and financial stability, cost commensurate with quality and service and consistency (CIPS, 2012).

The performance of suppliers substantially impacts on the efficiency and effectiveness of the buying firm and is of great importance (Fredriksson et al., 2011). According to Handfield et al., (2009), one reason for supplier selection is that of product development process, meaning that as the product development cycle reduces suppliers are also required to reduce the delivery cycle or else competent ones will be sought for and those that do not meet the criteria set by firms are supposed to be weeded out (Trevelen 1987). Dwyer (1993) is in agreement with Trevelen. He argues that the goal of supplier evaluation is to secure valued resources and technologies of the selected suppliers in situations that preclude the option of vertical integration due to resource limitations and managerial constraints. Apart from being able to harness the strengths and skills of suppliers to their advantage firms that conduct supplier evaluation also benefit from improved quality and process performance and continuous cost reductions (Newman, 1988).

The Kenyan food-processing sector remains the largest component of the manufacturing industry in terms of structure, economic contributions, and performance within the manufacturing sector (KAM, 2014). However, according to the Kenya National Bureau of Statistics (KNBS, 2009), the sector is contracting despite the fact that it still generates over a third (33.4 per cent) of the total manufacturing production, and provides 89,319 jobs. The abstract blames the contraction on

high production and ingredient costs. With these and many other challenges the companies need to evaluate their suppliers (Narasimhan et al., 2004)

1.1.1 Supplier Evaluation

According to Dobos et al., (2012), supplier evaluation is a management activity with the primary aim of acquiring information to analyze and to manage supplier relationships and supply situations. The process entails the simultaneous consideration of a number of critical supplier performance features that include price, delivery lead-times, and quality (Narasimhan et al., 2001.) The importance of supplier selection is seen from its impact on overall firm performance and, more particularly, on finished product features such as cost, design, new product development, quality, among other effects (Handfield et. al, 2009; Newman, 1988).

Current increased government regulations, a rapidly growing environmental awareness among customer and increased competition drive companies to undertake initiatives to transform their supply chain processes and their suppliers work (Nordling et al., 2010). The traditional approach of supplier selection used to consider multiple suppliers and one main selection criterion, the price. However, the market has moved towards contracting a single supplier selected by means of a multiple criteria (Gallego et al., 2011). This trend makes the importance of objective evaluation of supplier performance higher since a long-term supplier strategy is not only important for an organization's development and profitability but is also a crucial part of the overall business strategy (Nordling et al., 2010).

A supplier in the current market often needs to fulfill requirements other than just those concerning material and service, such as requirements that prove the supplier's capability and suitability to live up to a company's long-term requirements and needs. It is vital to assure that the supplier can guarantee sustained continuity of supply and to be aware of its performance, strengths and weaknesses. Through implementing a structured approach gathering data of supplier performance strict agreements can be negotiated about improving reject rates, reducing total lead time and contributing to cost reduction (Nordling et al., 2010). According to Lysons et al., (2008), what to appraise is related to the needs of a particular purchase. Lysons, however, identifies eight major common supplier evaluation criteria including: finance, production capacity, human resource, quality, performance, environmental and ethical considerations, and organizational structure.

1.1.2 Organizational Performance

Performance is the level to which a supply chain fulfills the objectives of dependability, cost speed, quality, and flexibility (Slack, 2007). The importance of supplier selection can be drawn from its effect on firm performance and, more particularly, on final product features such as cost, design, manufacturability, quality and so on (Narasimhan et al., 2004). Narasimhan further argues that strategic evaluation of supplier performance helps buying organizations in improving their operations in a number of ways including: aiding in supplier process improvement, which in turn enhances firm's overall performance; allows for optimal allocation of resources for supplier development programs; and helps managers in re-engineering their supplier network on the basis of performance.

Supplier performance measures, too, help improve efficiency and effectiveness of supply chain (Handfield et al., 2008). As Lysons et al., (2009) points out financial and non-financial performance measures which include: quality, time/ responsiveness, innovation, physical environment and safety price performance, cost-effectiveness, revenue, administration efficiency, internal customer satisfaction, supplier performance and strategic performance .

According to (Myla, 2010) organizational performance can be indicated by the cost effective control alternatives applied to rectify cost inefficiencies or, in short, minimize costs while maximizing profits. She further points out that the cost control initiatives should not impact the customer's perceived value, nor should they run afoul of safety laws.

1.1.3 Food and Beverage Firms in Nairobi

The food and beverage industry can be defined as the preparation of food and drink products for sale and consumption. It involves the product research and design, testing sourcing of ingredients, processing, and preservation, packaging and marketing (Villinus 2008). According to the European e-business Market Watch (2005), the industry is divided into nine sub groups including: meat, fish, fruit and vegetables, fats, dairy products, grain mill and starch products, beverages and animal feed. The industry has a unique role to play in expanding economic opportunities because it is universal to life and health (Krishnaswamy, 2007).

According to the Food and Beverage industry Global Report(2010), Europe accounts for the largest share in the global food and beverage industry, generating revenues of \$1.4 trillion in

2007 and employing 4 million workers, followed by the US, which contributed \$1 trillion. In Kenya the food-processing sector, including food, beverages and tobacco, remains the largest component of the manufacturing industry in terms of structure, economic contributions, and performance within the manufacturing sector, as it comprises of 1,200 businesses, encompassing everything from small family organizations to large companies (KAM, 2014). Large firms are those with a turnover of £ 5.75 million per annum or employ more than 250 employees (www.investorwords.com).

(KAM,2013) indicates that there are 46 large food and beverage manufacturing firms in Nairobi classified in terms of bottled water, carbonated drinks, food, herbs and spices, tobacco, and wine and beer. The industry is of even more significance in developing countries where Agriculture seems to be dominant in almost all sectors of the economy (Krishnaswamy, 2007).

The industry is affected by many challenges including the economic slump, rising food prices, increasing transportation costs due to a rise in oil prices, and decline in consumers (Food and Beverage Industry Global Report (2010). According to the Kenya National Bureau of Statistics (2009) Statistical Abstract, in 2008, the sector declined by 3.9 percent from 2007, but still generated over a third (33.4 per cent) of the total manufacturing production, and provided 89,319 jobs. High production and ingredient, high duty on inputs, duplication of laws and regulatory agencies, competition from sectoral association, inadequate supplies of raw materials, high material handling, distribution and marketing costs, slow development and implementation of policies, and the use of obsolete technology and skills were partially blamed for this contraction (KAM, 2014). With these and many other challenges the companies need to evaluate their suppliers. The goal of supplier evaluation is to secure valued resources and technologies of the selected suppliers in situations that preclude the option of vertical integration due to resource limitations and managerial constraints (Dwyer, 1993).

1.2 Statement of the Problem

Selecting the most appropriate source of supplies has long been regarded as one of procurement's most important functions (Ogden et al., 2008). Organizations are therefore moving from the adversarial kind of transactions to the use of a few qualified suppliers with close relationships, a trend attributed to: the customers' demand for higher quality; wider range

of products; shorter time to market; and faster deliveries (Karlsson, et al., 2011). The food and beverage industry plays a unique role in expanding economic opportunities because it is universal to life and health (Krishnaswamy, 2007).

However, the industry's performance is below bar in Nairobi and is facing intense competition from the imported food stuffs from overseas (Okello et al., 2014). To tackle these challenges the food and beverage industry needs to evaluate their suppliers. The criticality of supplier selection is evident from its impact on firm performance and, more specifically, on final product attributes such as cost, design, manufacturability, quality, and so forth (Handfield et al., 2009).

A number of studies have been conducted on supplier evaluation. A study by Ho et al., (2007) looked at Supplier Evaluation and Selection Criteria in the Construction Industry of Taiwan and Vietnam and found out that non-quantifiable criteria play a very important role in the selection process and that the construction companies of Taiwan and Vietnam have come to an agreement in most of the appraisal criteria which include: product quality, product availability, delivery reliability, product performance, product cost and service after sale. The study did not however look at the relationship between evaluation and buyer performance. Other studies focused on functions in the buying organization that are involved in the evaluation of supplier performance. One such study was in the electronics industry in the USA where it was observed that purchasing, engineering, and production/operations, R&D, and finance were the functions mostly involved in evaluation (Pearson and Ellram, 1995). The study however falls short of looking at the relationship between supplier evaluation and buyer performance.

Studies by Thairu et al., (2012) looked into what the traders in Dagoreti market, in Kiambu, Kenya, thought about the concept of supplier appraisal and whether they practiced it. The study found out that the traders considered location of supplier, adequate facilities, use of information technology, financial strength, quality in operations and products, adequate production capacity, and skilled personnel, corporate social responsibility and good ethics and environmental friendliness as important supplier evaluation criteria. The study however did not look at the relationship between supplier appraisal and performance. The researchers recommended that further studies need to be carried out to find out the causal relationship between supplier evaluation and performance of retail trader, a gap that this study would wish to fill. Studies by Okello et al., (2014) focused on the influence of supply chain management practices of the

Nairobi Securities Exchange's listed food and beverage manufacturing firms in Nairobi and found out that product development processes, inventory management, lead time, technology and innovation have a significant effect on performance of food and manufacturing firms in Nairobi.

The studies reviewed did not look at supplier evaluation as one of the supply chain management practices that may affect performance of the food and beverage industry and the interest of this study to find out whether this has an influence on performance of the firms. It is on this basis that the study will seek to find out the relationship between supplier evaluation and buyer performance. The study will seek to answer the following study question: which criteria are used to evaluate suppliers in the large food and beverage manufacturing companies in Nairobi? what are the performance levels of firms in the large food and beverage manufacturing firms in Nairobi? what is the relationship between supplier evaluation and performance of large food and beverage manufacturing firms in Nairobi?

1.3 Objectives of the Study

The objectives of the study are:

- i. To establish the criteria used to evaluate suppliers in the large food and beverage manufacturing companies in Nairobi City County
- ii. To establish the performance levels of large food and beverage manufacturing firms in Nairobi City County
- iii. To determine the relationship between supplier evaluation and performance of large food and beverage manufacturing firms in Nairobi City County

1.4 Importance of the Study

The study will be of importance to consumers of goods and services of the food and beverage firms, in Nairobi, Kenya in three ways: price, delivery, and quality. Customers pay for value of goods and services and for them to be satisfied there must be some form of utility. The study will offer alternatives that will make firms improve customer service.

Food and beverage firms would use the findings and recommendations of this study to evaluate their suppliers. Many supplier evaluation methods will be brought out and will be of significance to buyers that have hitherto, not been evaluating suppliers.

The study will add to existing literature in the field of procurement and supply chain management. Other scholars may validate the findings and use the study as a reference text. Other researchers and institutions may follow the areas recommended for further research as a means of increasing knowledge on supplier evaluation.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter will review some of the studies that have been conducted in the area of supplier appraisal. It will seek to discuss: the criteria for supplier selection, performance, the relationship between supplier appraisal and buyer performance and the conceptual framework.

2.2 Supplier Evaluation

Supplier evaluation is a management activity whose primary aim is acquiring information to analyze and to manage supplier relationships and supply situations (Dobos et al., 2012). The process entails the simultaneous consideration of a number of critical supplier performance features that include price, delivery lead-times, and quality (Narasimhan et al., 2001.) The importance of supplier selection is evident from its impact on firm performance and more specifically on final product attributes such as cost, design, manufacturability, quality, and so forth.

Due to the high costs involved in the appraisal processes Lysons et al., (2008) suggests that appraisal should be used in the following situations: purchase of strategic high profit, high risk items, where potential suppliers do not hold accreditation, purchase of non-standard items, expenditure on capital items, global sourcing, outsourcing, placing of construction and similar contracts, when entering into JIT arrangements among others. Suppliers may be appraised in many ways: financial ability, quality, production facilities, environmental issues, supplier's organizational culture, cost factors production capacity and employee capabilities among others (Lysons et al., 2008; CIPS, 2012). These appraisal criteria are explained as follows:

2.2.1 Financial Stability

Supplier's financial condition need to be evaluated at the earliest stages of supplier appraisal. Some purchasers view the processes as a prescreening exercise that a supplier must pass before a detailed evaluation process can begin (Handfield et. al., 2008). According to the Chartered Institute of Purchasing and Supplies (2012) financial status and stability are measured by factors such as profitability, cash flows management, assets owned, debts owed among other factors. The financial criterion is important since selection of a supplier with poor financial conditions

presents a number of dangers to the purchaser. To start with, is the danger that the supplier will go out of business. Then suppliers with poor financial health will not have resources to invest in plant, equipment, or research necessary for long-term performance improvements. Thirdly, the supplier may become so financially dependent on purchaser. Lastly, financial weakness seems to be an indication of underlying problems (Handfield et al., 2008).

The financial stability will equally reflect on the ability of suppliers to meet the current contract with the purchaser and to ensure a secure future flow of supplies. The financial records may also indicate the risk of delivery or quality problems and more disruptions to supply and more complex legal issues if a supplier becomes insolvent. A supplier that is financially unstable poses three nightmares to the buyer. A buyer may need to insist on quality but the supplier is forced to cut on costs; a buyer may have a claim against the supplier but he may not have sufficient working capital; to meet it and a buyer may wish to insist on speed delivery but supplier cannot pay overtime (CIPS,2012; Lysons, 2008; Handfield et al., 2008).

A purchaser therefore needs to look at various sources of financial information to assist come up with decision on financial stability of suppliers. The sources include: published financial statements, the internet, the press among others (CIPS, 2012). The assessment of financial stability will need to look at: asset turnover, profitability, value of capital assets, scale of firm's borrowing, possibility of merger or take-off among other factors (Handfield et al., 2008; CIPS, 2012).

2.2.2 Quality

The British Standards definition of quality is 'the totality of features and characteristics of a product of a product or service that bear on its ability to satisfy given need' (CIPS, 2012). A buyer needs to assess and ensure that a supplier has robust systems and procedures in place for monitoring and managing its outputs. The systems for the detection and correction of defects are called quality control while those for prevention of defects are known as quality assurance and a buyer needs to check whether the supplier has these in place (Lysons et al., 2008). According to Handfield et al., (2008) an important part of evaluation processes touches on a supplier's quality management systems and philosophy. According to Lysons et al., (2008) firms appraising quality of suppliers will find themselves looking at the following issues: procedures for inspection and testing of purchased materials, accreditation with national and international quality standards

bodies such company standards, Association of Trade Standards, International standards organization (ISO) and British Standards Institution (BSI) (CIPS 2012; Lysons 2008). The success of the buying organization is highly dependent on how well the suppliers perform. It is also important that the supplier and the buyer have the same idea of what satisfactory quality is (Gallego, 2011).

2.2.3 Production Facilities

According to Lysons et al., (2008) a buyer should also assess a supplier's machinery with attention paid to the following points: the availability of full range of machinery required to produce a required product, mechanisms to overcome shortage of machinery, evidence of good housekeeping, adoption of approaches such as computer aided designs, computer aided manufacture, satisfaction on safety provisions and modernity and well maintenance of machines.

A buyer should focus on suppliers who have listed the name and location of the production facility, whose facilities have complied with ISO 9001 standards, are socially compliant. The supplier should have production experience documentation and the age of the equipment should be assessed (CIPS 2012)

2.2.4 Environmental Issues

A buyer should also look at the environmental policies of the supplier and the ISO 14001 guidelines on environmental policies in its appraisal (Lysons et al., 2008). According to Handfield et al., (2008) there is increased awareness of the impact of industry on environment and buyers should look at compliance to environmental regulations by supplier to avoid stiff penalties due non compliance. The most common environmental performance criteria used when evaluating a supplier's performance include: hazardous and toxic waste management, disclosure of environmental infractions, recycle management, ISO 1400 certification and control of ozone-depleting substances (Handfield et al., 2008). A buyer will equally include looking at other issues like: allocation of environmental management responsibility, sustainable sourcing, and energy saving effort (Lysons et al., 208).

A buyer also needs to look at sustainability issues including: supplier's ethical policy, procedures and guidelines relating to confidentiality of information, guidelines on gifts and hospitality,

principles with regard to conflict of interest (Lysons et al., 2008). Social responsibility, ethical criteria and labor standards might include: the development of robust CSR policies and ethical codes, evidence of responsible and ethical labor policies and practices, compliances with International Labor Organization standardization, evidence of ethical trading policies and practices, compliance with Fair Trade Standards and commitment to transparency and improvements (CIPS, 2012).

2.2.5 Supplier's Organizational Culture

Organizational culture ('the way we do things around here') is a reflection of common values, beliefs, assumptions and norms of behavior that develop in an organization over time. Culture is explicitly stated in organizational mission and value statements, but is also seen in the attitudes expressed by managers and staff in their behavior, in the look of the premises, the neatness of staff uniforms and all sorts of other expressions (CIPS, 2012). The buyer should therefore focus on the supplier's commitment to innovation, responsibility, ethics, quality consciousness, and communication since this will be crucial indicators supplier's commitment to working in relationships. Evaluation of this will indicate whether there will be compatibility of the values, beliefs and attitudes to quality of those of buyer and supplier.

Since management runs the business and makes decisions that affect the competitiveness of the supplier, a buyer should look at the management competitiveness of the supplier taking into account of the following managerial issues: management practice on long- range planning, management's commitment to TQM, the turnover of managers, professional experience and educational backgrounds of the key managers, availability of vision about future direction among other things (Handfield et al., 2009).

2.2.6 Cost Factors

A buyer should equally look at a supplier's price and cost factors. Evaluating a supplier's cost structure needs a deep understanding of a supplier's total costs, including: direct labor costs, indirect labor costs, material costs, manufacturing costs and the general overhead costs. Understanding cost structure of the supplier will help a buyer determine how efficiently a supplier can produce an item and at the same time provide means for identification of areas of cost improvement (Handfield et al., 2008).

According to CIPS, (2012) a buyer should be interested in: structure and allocation of costs, competitive pricing, commitment to collaborative cost reduction initiatives, availability of credit terms, the total cost of acquisition and ownership, ability by the supplier to propose an innovative financial approach like gain sharing, warranty, satisfies best value analysis and maintenance costs

2.2.7 Production Capacity

According to the CIPS, (2012) production capacity and technical capability refers to factors in the supplier's operational capacity and facilities, which acts as indicators of its ability to meet the purchaser's current and future requirements. The technical or operational capability factors that a buyer needs to take into account when appraising suppliers include: age and maintenance of plant and machinery, capabilities in operational areas such as engineering, innovation, design, JIT, late customization, reverse logistics and recycling, capability of plant and machinery to produce items within the tolerance set by specifications, volume that supplier may handle and whether the supplier can produce the kind of items required.

Production capacity on the other hand refers to the volume that a supplier will be able to handle and the number of units it can produce at a stated time period. This can be evaluated using the following parameters: maximum productive capacity in a given working period, potential to increase current capacity, percentage of capacity utilized by existing major customers and the extent to which capacity is currently over or under committed (CIPS, 2012, Lysons, 2008).

2.2.8 Employee Capabilities

This evaluation criterion requires assessment of non-management personnel since there are benefits associated with highly trained, stable, motivated workforce especially during periods of labor shortage (Handfield et al., 2008). As Lysons et al., (2008) puts it, no organization is better than its workforce. A purchaser should therefore consider the following when appraising employee capability: the degree to which employees are committed to quality, the overall skills and abilities of the workforce, employee-management relations, worker flexibility, employee morale, workforce turnover, willingness of employees to contribute to improved operations, days lost due to industrial dispute and worker representation and recognized trade unions among others (Handfield et al., 2008; Lysons et al., 2008).

The evaluator equally needs to look at the staffing structure of the supplier, the experience in the industry, state of technology being used and the past performance in order to get the right supplier (Lysons et al., 2008).

2.2.9 Preference and Reservation

Another criterion for supplier selection is that of preference and reservations. According to the Public Procurement Authority (PPOA) public procurement and disposal regulations (2011) preference and reservations is the establishment of the extent of participation of SMEs' and disadvantage groups in Public Procurement and Development of a framework for their participation with the idea of promoting local, national and regional industry and support socio-economic development.

Buyers in the public sector, therefore, look at different groups such as: the disadvantaged groups, local preference, micro-enterprises, preference, region, reservations, small enterprises, target group, small enterprises, micro enterprises, disadvantaged groups, citizen contractors, local contractors and joint-ventures or sub-contracting arrangements with foreign suppliers (PPOA, 2005). Preferences and reservations can have a positive effect on a country's productive sectors as found by studies in China which found out that government purchases can serve as policy instruments (Baumol, 1974). The studies show that China has implemented a policy that explicitly discriminates against foreign owned companies when purchasing high technology products. This approach in public procurement is a component of catch up strategies aimed at promoting innovative capacities of local firms.

Burkhart and Trionfetti (2000), in a study of EU economies countries argue that in most developed countries found out that public sector purchases from the private sector account for more than 10% of GDP and governments in developed countries will typically favor local suppliers. In their analysis they postulate that determinants of industry location like factor endowments, market access and intermediate inputs will have a strong impact on industry location if the level of government purchase in that industry is low and vice versa

2.3 Organizational Performance

One performance measure is quality which is measured in a number of ways including: parts per million, customer defects per supplier and field failure rates by purchase item and by supplier

(Lysons et al., 2009). Another measure is responsiveness/ time / delivery which measures the amount of time in weeks or months from concept to first shipment or delivery of final product to the market with the objective of continuous reduction of time to the market. The measures here include: on time delivery, cycle time reduction, responsiveness to schedule changes, mix changes and design or service changes and achieving new product introduction (Lysons et al., 2009; Handfield et al., 2008).

There is need to also measure performance of production since it has a major impact on product cost, quality, speed of delivery, and on delivery reliability and flexibility (Lack et al., 1995). Another measure of production performance is range of product and services offered. According to Mapes et al., (1997), a company that manufactures a wide range of products is likely to introduce new products at a slower rate than companies with a narrow product range. According to Fisher (1997), the selection of a right supply chain strategy depends upon the nature of product variety and innovation. This also implies that the range of products and services acts as an important strategic metric, and hence, it should be considered in performance evaluation.

Capacity utilization equally measures performance of a supply chain and according to Wild (1995) all the operations planning takes place within the framework set by capacity decisions. From the above statement, the role of capacity in determining the level of all supply chain activities is clear. This highlights the importance of measuring and controlling the capacity utilization. Capacity utilization directly impacts on the speed of response to customers' demand and thus measuring capacity, gains in flexibility, lead-time and deliverability will be achieved (Slack et al. 1995).

Delivery of goods and services is another measure of performance in a supply chain management and since it directly deals with customers it is referred to as "driver of customer satisfaction" (Gunasekaran, 2001). Some of the measure of delivery include: on-time delivery, delivery-to-request date; delivery-to-commit date; and order fill lead-time. Supply performance measurement must be linked to customer satisfaction (Lee and Billington, 1992). There is therefore need for measurement of integration of the customer specification in design, to set the dimensions of quality, for cost control, and as a feedback for the control of process. The following are some of the related performance metrics: flexibility, customer query time (time it takes for a firm to respond to a customer inquiry with the required information), reduction in

warranty claims, and number of customer complaints and percentage of orders with complaints, customer satisfaction, and order entry accuracy (Pohlen, 2003; Handfield et al., 2009; Lapide, 2013).

The financial performance of a supply chain can be assessed by customer sales growth and profitability which parameters look at the sale and profits generated each year with sales expected to grow each year or remain constant at the worst (Makori,2013). The Return on supply chain investment is another measure used to gauge supply chain performance. Return on supply chain investment is worked out on operating profits in excess of capital employed (Pohlen, 2003; Lapide, 2013). Performance be measured through inventory performance or fill rate which can be measured in terms of: number of Stock-keeping units, order cycle time, percentage of quality rejections, average safety inventory, percentage fraction of time out of stocks, percentage of seasonal inventory and inventory turn-over (Pohlen, 2003; Lapide, 2013).

Transportation performance can be measured through: total transportation costs, number of vehicles operated, percentage of outbound shipments, average outbound shipment size, percentage of inbound shipments, percentage average inbound shipment size, fraction of transportation mode, percentage on timely delivery, percentage of accidents , average kilometers vehicles running full load or empty per day (Lyson et al., 2006). Cash conversion cycle and percentage of internal and external complaints for data unavailability also measure optimization (Lapide, 2013).Cash to cash cycle measures the time it takes from point of purchase of raw material to conversion of raw materials and to sales and final collection of cash from sales (Makori,2013).

Other performance measures include price and cost with common price performance looking at actual purchase price against planned purchase price (CIPS, 2012) and cost looking at cost changes and cost avoidance. A cost change is the increase or decrease in cost resulting from a change in purchasing strategy while cost avoidance represents the difference between a price paid and a potentially higher price which might have occurred if a purchase had not been obtained at a lower price (Handfield et al., 2009).

2.4 Supplier Evaluation and Organizational Performance

Supplier selection is largely seen as the most vital role of the procurement function since the organization's suppliers can affect the price, quality, delivery reliability and availability of its products (Li, 2008). Organizations feel that proper supplier selection would assist reduce product and material costs whilst ensuring a high degree of quality and after-sales services (Sonmez, 2006). The implication here is that an efficient appraisal should be in place for the successful supply chain management (Li, 2008).

There are a number of benefits of supplier appraisal these include: ability to harness the strengths and skills of suppliers to the advantage of buyers (Dwyer, Schurr and Oh 1987), improved quality and process performance and continuous cost reductions among others (Newman 1988; Wilson, Dant, and Han). According to CIPS, (2007) supplier appraisal is also important in strategic sourcing, supplier management and the achievement of competitive advantage. Firms that appraise their suppliers discover that they have improved visibility into supplier performance, unmask and deal with hidden cost drivers, lower risk, increase competitive advantage through reducing order cycle times and stock, have insight on how to best leverage their supply base, and align practices between themselves and their suppliers (Gordon, 2006). Companies pursuing supplier appraisal commonly see over a 20% improvement in supplier performance metrics such as on-time delivery, quality, and cost.

Supply chains can be full of inefficiencies some due to poor policies and strategies at the supplier's, that results to hidden costs such as stock-outs, carrying costs of overstocking, incorrect payments of invoices, slow acknowledgement and reporting of shipment and lost sales which in turn affects productivity, quality issues, increased wasteful costs (extra inspections, additional freight fees, overtime, buffer stocks, obsolete inventory, multiple sourcing) and slow movement of goods which can be improved by supplier evaluation and better communications between buyers and suppliers (Pisello, 2006;Gordon, 2006). Evaluating and improving supplier performance using the quality and production capacity criteria can lead to the resultant reduction in supplier quality problems eliminates wasteful steps in a firm's own processes and at the same time helps improve understanding of supplier performance and supplier's business policies and processes and thus assisting the buyer help suppliers drive waste and inefficiency out of supply

chain, resulting in higher-quality suppliers and lower costs which in turn improves the profitability of the buyer (CIPS, 2007; Lysons et al., 2008; Handfield et al., 2008)

Supplier appraisal aims at reducing purchases from marginal or poor performing suppliers while increasing and concentrating purchases among their more desirable top-performing suppliers (Wisner, 2008). Appraisal of suppliers and consequent reduction of supply base has implication performance in terms of cost, design, manufacturability and quality (ISM, 2005). Rationalizing the supply base equally leads to buying from world class suppliers, reduction of supply base risks, use of full-service suppliers and ability to pursue complex supply management strategies (Handfield, et al., 2009). According to Gordon, (2006) supplier appraisal can set a threshold for its suppliers that can lead to higher-quality results, better plan new products and services based on a good understanding of its suppliers' capabilities and performance levels and help understand if local suppliers are capable of reducing total costs enough to outperform offshore suppliers.

Supplier evaluation to ensure compatibility between buyer and supplier in terms of shared business ethics, similar standards of excellence, commitment to continuous improvement are important in performance of suppliers (CIPS, 2012). Compatibility is of concern especially in adoption of supply chain best practices such as lean enterprise or any high performance system that drives shorter delivery times, higher quality, and lower prices which could actually have an adverse effect on a supplier who is not aligned with these practices. According to Gordon (2006) a supplier who is unused to pursuing continuous improvement may be unable to keep up with its buyers' increasing requirements for better, cheaper, faster goods and services. Supplier appraisal is therefore important to ensure compatibility and reduce risk of failure of supplies (Handfield et. al., 2008; Lysons et al., 2008)

The financial criteria of supplier appraisal can give an important insight into supplier performance and supplier business practices which help reduce business risk, especially given firms' increasing dependence on its key suppliers. Some of the supplier risks that appraisal can mitigate on include: financial, operational, increased geographic distance and the performance of sub-tier suppliers whom the prime supplier has no contact with or knowledge of Gordon (2006).

The quality criteria help the supplier in performance improvement (Gordon, 2006). Supplier appraisal is an effective motivation tool when it leads to continuous improvement activities and real supplier performance improvement. A buyer that appraises its suppliers helps them motivated to improve on quality, delivery, and costs especially if these are used as yardsticks to reward performing suppliers (CIPS, 2012). As Gordon, (2006) posits, supplier evaluation can: unearth the causes of performance difficulties; improve understanding of business operations; cultural factors and the leadership at the supplier which lead to follow-up activities, such as supplier training and development, and corrective actions that deal with supplier evaluation findings hence coming up with the best ways to obtain measurable and positive results which will at the end improve profitability and quality performance of buying firm.

2.5 Summary and Conceptual Framework

This section looks at the summary of the literature review and the conceptual framework. It summarizes the literature that has been reviewed highlighting on the important studies done and their findings and also the conceptual framework.

2.5.1 Summary of the literature review

This study is to investigate the relationship between supplier evaluation and the performance of the food and beverage manufacturing firms in Nairobi, Kenya. According to the National Bureau of Statistics (2009) the food and beverage manufacturing firms in Kenya contribute immensely to economic growth generating over a third (33.4 per cent) of total production in the country. Given such unique role the sector plays in expanding economic opportunities, supplier evaluation is necessary (Krishnaswamy, 2007).

Many studies have been conducted in the area of supplier evaluation Ho et al., (2007) for instance investigated the contribution of Supplier Evaluation and Selection Criteria in the Construction Industry in Taiwan and Vietnam and found out that non-quantifiable criteria play a very important role in the selection process and that the construction companies with the common appraisal criteria being product quality, product availability, delivery reliability, product performance, product cost and service after sale. Other studies locally include: Thairu et al., (2012) and Okello et al., (2014) looked into what the traders in Dagoreti market, in Kiambu

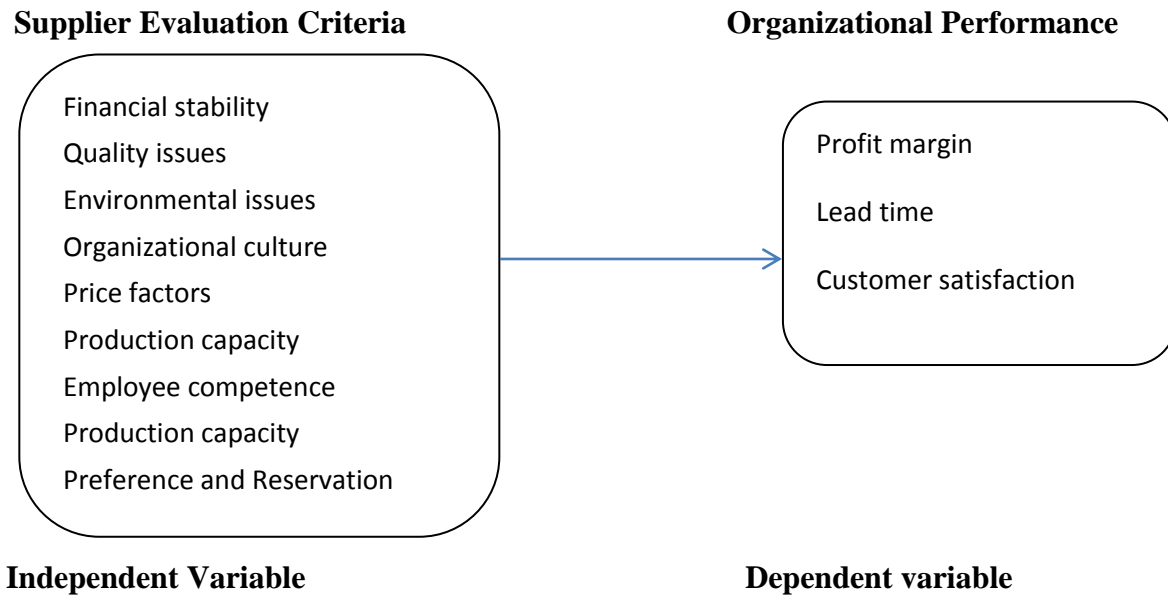
Kenya thought about the concept of supplier appraisal and whether they practiced it and the influence of supply chain management practices of the Nairobi Securities Exchange's listed food and beverage manufacturing firms in Nairobi respectively.

The studies reveal that the supplier evaluation criteria include: location of supplier, adequate facilities, use of information technology, financial strength, quality in operations and products, adequate production capacity, and skilled personnel, corporate social responsibility and good ethics and environmental. There is also the review of performance with a review of performance measures such as quality, delivery, profitability, price among many others (Narasimhan et al., 2004). As several studies have been done in this area, it is important to investigate the conclusion made by these studies to establish whether similar conclusion can be reached when using different methodology and researcher to conduct the study. Equally since most studies did not investigate causal relationships between evaluation criteria and performance it is necessary to find out this.

2.5.2 Conceptual Framework

A conceptual framework assists to simplify the proposed relationships between the dependent variable and the independent variables in a study and allows the same to be depicted diagrammatically. The conceptual framework explains the relationship between independent and dependent variables in the study. In this study performance is the dependent variable since its success depends on individual outcomes of supplier evaluation which is the independent variables: quality, environment, organizational culture, employee competence, financial ability, production facilities, production capacity and cost factors. The success of supplier evaluation impacts on firm performance: profit margin, lead time and customer satisfaction as shown in Figure 2.1.

Figure 2.1: Conceptual Framework



Source: Researcher, (2014)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Design

The study adopted a descriptive survey of all the large food and beverage manufacturing companies operating in Nairobi, Kenya. This survey approach allowed the researcher to collect a large amount of data from a sizable population in an economical way.

3.2 Population

The study targeted all the large food and beverage manufacturing firms in Nairobi, Kenya. There are 46 large food and beverage manufacturing firms in Nairobi Kenya as can be seen in the appendix attached (KAM, 2013). All these comprised the population of the study.

3.3 Sampling

This study sampled all the 46 large scale food and beverage manufacturers firms in Nairobi County. This was census form of sampling which is used when the entire population is sufficiently small and involves sampling every member in the population (Statpak, 2013). The respondents to the questionnaire were the chairs of the supplier evaluation committees from the sampled food and beverage manufacturing firms in Nairobi, Kenya

3.4 Data collection

Primary data was used in this study to research specific objectives by means of closed ended questionnaires. Section A, dealt with general information of the organization. Section B, sought to establish the criteria used to evaluate suppliers in the large food and beverage manufacturing firms in Nairobi, Section C sought to establish the performance levels of the large food and beverage manufacturing firms in Nairobi in the food and beverage industry in Nairobi.

The questionnaire was self-administered by drop and pick later method at the food and beverage firms in Nairobi City County to give the respondents time to fill.

3.5 Data Analysis

Since the data collected was qualitative and quantitative in form, the study adopted both qualitative and quantitative methods of data analysis.

In order to establish the criteria used to evaluate suppliers in the large food and beverage manufacturing companies in Nairobi. Means and standard deviations tables were used to show the evaluation criteria that is commonly used and in establishing the performance levels of the firms. This is presented in tables.

Correlation and multiple regression analyses were applied to determine the relationship between supplier evaluation and performance of large food and beverage manufacturing firms in Nairobi. The following regression model was used to establish the relationship between supplier evaluation and performance of large food and beverage manufacturing firms in Nairobi:

$$y = \alpha + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \beta_6x_6 + \beta_7x_7 + \beta_8x_8 + \mathcal{E}$$

Where y represented firm performance; α is the constant; x_1 is financial stability; x_2 is quality ; x_3 is environmental issues; x_4 is supplier's organizational culture; x_5 is cost; x_6 is production capacity, x_7 is employee capacity; x_8 preference and reservations; β_1 to β_8 are the weights of each independent variable.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents data analysis, findings, and discussion of the results. Interpretation is in line with study findings. The respondents were drawn from large food and beverage manufacturing firms in Nairobi City County. The expected sample population was 46 respondents of which 27 successfully completed and returned the questionnaires for analysis. This represents 63% of the respondents.

The researcher sought to find out the organizational profile of the large food and beverage manufacturing firms in terms of whether they practice supplier evaluation and for how long in years.

4.1.1 Organizational evaluation of suppliers

From Table 4.1 it is clear that all the respondents indicated that the organizations evaluate their suppliers. This means that the study topic is relevant.

Table 4.1: Organizational evaluation of suppliers

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Yes	27	100.0	100.0	100.0
No	0	0.0	0.0	0.0

Source: Researcher, (2014)

4.1.2 The supplier evaluation period

All the firms that responded evaluate their suppliers with majority of them having done it for more than five years as Table 4.2 shows. Hence supplier evaluation is not a new concept in the food and beverage manufacturing firms.

Table 4.2: Supplier evaluation period

	Frequency	Percent	Valid Percent	Cumulative Percent
2 to ≤ 5 years	8	29.6	29.6	29.6
> 5years	19	70.4	70.4	100.0
Total	27	100.0	100.0	

Source: Researcher, (2014)

4.2 Supplier evaluation criteria

Many criteria can be used to evaluate suppliers. These include: the financial stability of the supplier, quality issues, environmental friendliness of the supplier, supplier's organizational culture, price factors, production capacity of the supplier, employee capabilities of the supplier and preference and reservation. The respondents were asked to indicate to what extent they used the criteria on a five point scale where 1=very small extent, 2= small extent, 3= moderate extent, 4= great extent and 5= very great extent. The results are as in Table 4.3.

Table 4.3 Supplier evaluation criteria

Criteria	Mean	Standard Deviation
Financial stability of the supplier	3.519	1.014
Quality issues	4.074	1.072
Environmental friendliness of the supplier	2.444	1.050
Supplier's organizational culture	3.185	1.001
Price Factors	4.259	0.859
Production capacity of the supplier	3.778	1.281
Employee Capabilities of the supplier	2.704	1.137
Preference and Reservation	2.296	0.993

Source: Researcher, (2014)

Table 4.3 shows all the criteria given used in evaluation of the suppliers. However the firms consider pricing to a great extent with a mean of 4.3, closely followed by quality issues and production capacity of the supplier. The worst mean is that of preference and reservation with a

mean of 2.3 indicating that the private sector is yet to embrace the criterion. The standard deviations are smaller to mean supplier evaluation is practiced.

4.3 Organizational Performance

This section aimed at knowing the organizational performance of the firms using the performance measures summed as lead time and customer satisfaction.

Table 4.4: Organizational Performance

Organization	Mean	Standard Deviation
1	4.038462	0.52769455
2	3.846154	0.543492976
3	4.230769	0.429668924
4	4.115385	0.431455497
5	3.961538	0.196116135
6	4.307692	0.549125178
7	4.192308	0.401918476
8	4	0.282842712
9	3.884615	0.515901004
10	4.230769	0.429668924
11	4.115385	0.431455497
12	3.961538	0.196116135
13	4.307692	0.549125178
14	4.192308	0.401918476
15	3.961538	0.196116135
16	4.307692	0.549125178
17	3.884615	0.515901004
18	3.807692	0.401918476
19	3.961538	0.598716576
20	3.846154	0.464095481
21	4.230769	0.429668924
22	4.115385	0.431455497
23	3.961538	0.196116135
24	4.307692	0.549125178
25	4.192308	0.401918476
26	3.961538	0.196116135
27	4.307692	0.549125178

Source: Researcher, (2014)

The means and standard deviations show that the firms studied are doing in performance. The mean is averagely 4 which imply that to a great extent the performance measures are achieved. The means are concentrated together to show that it is not one but all the organizations have embraced initiatives that enable them measure their performance.

Further this is an indication that the lead time is reduced through being responsive to time in ensuring on time delivery, quick to act to emerging issues and reduction of cycle time as well as keeping the customers satisfied by providing quality products and handling the customers well in responding to their complaints.

4.4 Supplier evaluation criteria and performance

This section seeks to establish the relationship between supplier evaluation and performance of the firms studied. These relationships are tested using correlation and regression analyses. Table 4.5 shows the summary data for performance and supplier evaluation criteria variables used in correlation and regression analyses.

Table 4.5: Summary data for performance and supplier evaluation criteria

Company	Performance	stability of the supplier	Quality issues	Environmental friendliness of the supplier	Supplier's organizational culture	Price factors	capacity of the supplier	Employee capabilities of the supplier	Preference and reservation
1	4.038462	4	4	2	4	4	5	4	3
2	3.846154	2	4	3	4	4	4	3	2
3	4.230769	4	4	4	5	4	4	4	4
4	4.115385	4	4	3	4	5	5	5	4
5	3.961538	4	4	2	5	4	4	4	5
6	4.307692	4	5	4	4	4	4	5	5
7	4.192308	4	4	4	4	5	5	5	4
8	4	4	5	4	5	4	4	4	5
9	3.884615	2	4	2	3	4	4	3	3
10	4.230769	4	4	4	5	4	4	4	4
11	4.115385	4	4	3	4	5	5	5	4
12	3.961538	4	4	2	5	4	4	4	5
13	4.307692	4	5	4	4	4	4	5	5
14	4.192308	4	4	4	4	5	5	5	4
15	3.961538	4	4	2	5	4	4	4	5
16	4.307692	4	5	4	4	4	4	5	5
17	3.884615	2	4	3	3	5	4	3	3
18	3.807692	3	3	2	2	4	4	3	3
19	3.961538	2	4	2	3	4	4	3	3
20	3.846154	3	3	2	2	4	5	3	3
21	4.230769	4	4	4	5	4	4	4	4
22	4.115385	4	4	3	4	5	5	5	4
23	3.961538	4	4	2	5	4	4	4	5
24	4.307692	4	5	4	4	4	4	5	5
25	4.192308	4	4	4	4	5	5	5	4
26	3.961538	4	4	2	5	4	4	4	5
27	4.307692	4	5	4	4	4	4	5	5

Source: Researcher, (2014)

Table 4.6 shows the correlation between supplier evaluation criteria and performance together with the significance (sig) of the correlation.

Table 4.6: Correlation Analysis

Correlations										
		perf	Financial stability of the supplier	Quality issues	Environmental friendliness of the supplier	Supplier's organisational culture	Price Factors	Production capacity of the supplier	Employee Capabilities of the supplier	Preference and Reservation
Pearson Correlation (r)		1	.614**	.522**	.822**	.247	.319	.373	.785**	.278
Sig. (2-tailed)			.001	.005	.000	.213	.105	.055	.000	.161
N		27	27	27	27	27	27	27	27	27

Source: Researcher, (2014)

The Pearson correlation r indicates the strength of the relationship between the supplier evaluation criteria and performance. When $0 < r \leq 1$ it indicates a positive relationship between supplier evaluation criteria and performance. When $r=0$ it indicates that there is no relationship between supplier evaluation criteria and performance. When $-1 \leq r < 0$ it indicates a negative relationship between the supplier evaluation criteria and performance. The value shown as sig indicates the significance between supplier evaluation criteria and performance.

The results indicate that only four supplier evaluation criteria: Financial stability of the supplier, Quality issues, Environmental friendliness of the supplier and Employee Capabilities of the supplier are related to performance with a p-value (Sig. 2-tailed) < 0.05 . Among the supplier evaluation criteria significantly related to performance, Environmental friendliness of the supplier has the greatest positive relationship to performance with $r=0.8$. Quality issues criterion contributes least towards the performance with the least correlation value ($r=0.5$) among the significant criteria variables.

The regression analysis was done on Eviews and Table 4.7 shows the output.

Table 4.7: Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.087049	0.308232	13.25964	0.0000
X ₁ FSS?	-0.019139	0.067992	-0.281493	0.7815
X ₂ QIS?	-0.045541	0.058109	-0.783713	0.4434
X ₃ EFS?	0.085888	0.023657	3.630561	0.0019
X ₄ SOC?	0.000942	0.023668	0.039810	0.9687
X ₅ PFR?	-0.125058	0.060334	-2.072762	0.0528
X ₆ PCS?	-0.050244	0.069428	-0.723694	0.4786
X ₇ ECS?	0.207247	0.056064	3.696614	0.0017
X ₈ PRS?	-0.032263	0.041737	-0.773023	0.4495
R-squared	0.913844	Mean dependent var		4.082741
Adjusted R-squared	0.875553	S.D. dependent var		0.166489
S.E. of regression	0.058732	Sum squared resid		0.062091
F-statistic	23.86547	Prob(F-statistic)		0.000000

Source: Researcher, (2014)

FSS - Financial stability of the supplier

EFS - Environmental friendliness of the supplier

SOC- Supplier's organizational culture

PFR - Price factors

PCS - Production capacity of the supplier

ECS - Employee capabilities of the supplier

PRS - Preference and Reservation

Table 4.8 shows the regression analysis from which the regression is summarized as:

$$Y=0.086EFS+0.207ECS-0.125PFR-0.019FSS-0.046QIS-0.0009SOC-0.050PCS-0.032PRS$$

The model's F-statistic (p=0.000) indicates 100% significance. The R squared is 0.914 which means that the model's explaining power is 91.4% therefore the results are reliable.

The regression analysis shows that Employee capabilities of the supplier has the highest significance (P=0.0017,) at significance level of 5%, Environmental friendliness of the supplier follows closely (P=0.0019) at 5% significance level and Price factors (P=0.528) at 10%

significance level. This implies that these criteria are the life spring of performance in food and beverage firms.

Supplier's organizational culture, financial stability, Quality issues, Product capacity of the supplier and Preference and Reservation are insignificant given that their probabilities are >10% significance level hence they do not influence performance.

4.5 Discussion of Results

The results showed that suppliers are evaluated using the preset criteria which are; the financial stability of the supplier, quality issues, environmental friendliness of the supplier, supplier's organizational culture, price factors, production capacity of the supplier, employee capabilities of the supplier and preference and reservation. This concurs with Dobos et al., (2012) who posits that supplier evaluation is a management activity which help in acquiring information to analyze supply situations.

The findings indicate that the food and beverage firms that were studied are doing well in performance that is realized by the reduction in lead time as well as having the customers satisfied .This is indicated by the rise in number of the customers satisfied. Similarly, time to market is reduced, the returns inwards are reduced, capacity is utilized well and supply base risks were reduced. This is similar to Lee and Billington, (1992) who posit that supply performance measurement is linked to customer satisfaction hence growth in sales. (Lapide, 2013).

The correlation results show that among the given criteria, environmental friendliness of the supplier, employee capabilities of the supplier, quality issues and financial stability of the supplier have a strong positive correlation ($0.522 \leq r \leq 0.822$). This implies that once a supplier is environmentally friendly he will tend to follow the environmental regulations hence the products will be acceptable in the society. This concurs with earlier assertions that point out that there is increased awareness on the impact of industry on environment and compliance to environmental regulations, that financial records can indicate the risk of delivery, quality problems and more disruptions to supply including legal issues if the supplier becomes insolvent and that the products bear the ability to satisfy needs. (Handfield et al., 2008, CIPS, 2012).

The correlation also shows that price factors, organizational culture of the supplier, production capacity of the supplier and preference and reservation do not relate to performance ($r < 0.5$). This is contrary to facts that the cost structure and allocation information is necessary for the buyer for telling whether there are chances of price improvement, that the norm of an organization is expressed in the employees attitude and behavior (CIPS,2012).

The regression analysis indicates that employee capabilities is significant $P=0.0017$ at 1% significance. This means that the best the employees are the best the performance which is similar to Lysons et al., (2008) where it is noted that no organization is better than its employees. At the same time environmental friendliness is significant ($p=0.0019$) meaning it positively influences performance which concurs with Handfield et al., (2008) that there is increased awareness by industries to comply to environmental regulations. Price factors are significant ($p=0.528$) at 10% significance level. It concurs with CIPS, (2012) asserting that it is important to know the supplier's cost structure and cost allocation.

The other criteria are insignificant. They are supplier's organizational culture, financial stability, production capacity, quality issues and preference and reservation which have $0.443 \leq p \leq 0.968$. This is contrary to assertions that an organization's culture defines that the supplier and buyer organizations should be compatible in their values and beliefs , that financial stability is a prescreening exercise that a supplier must pass, that the supplier has the right machinery and equipment that can produce the likely demands, that products have the ability to satisfy the needs presented (CIPS,2012, Handfield et al., 2008 Lysons, et al.,2008)

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusions and recommendations based on findings and suggestions for further research. The study had three main objectives: to establish the criteria used to evaluate suppliers in the large food and beverage manufacturing companies in Nairobi City County, to establish the performance levels of large food and beverage manufacturing firms in Nairobi City County and to determine the relationship between supplier evaluation and performance of large food and beverage manufacturing firms in Nairobi City County.

5.2 Conclusions

From this study it can be concluded that large food and beverage firms in Nairobi City County evaluate their suppliers using the criteria established: The financial stability of the supplier, quality issues, price factors, environmental friendliness of the supplier, production capacity of the supplier, employee capabilities of the supplier and preference and reservation.

Environmental friendliness of the supplier, employ capabilities and price factors of the supplier are the most domineering criteria which mean that firms are keen on producing at minimum costs and the right volumes employing the right expertise to be able to satisfy the available market while being compliant to environmental issues.

It can also be concluded that firms that practice supplier evaluation as one of the supply chain practices are able to reap from the benefits associated with it. For instance reduction in number of complaints is associated with a firm's organizational culture, stock out levels reduce with embracing preference and reservation which at the same times aids in distributing resources to all citizens.

5.3 Recommendations

Based on the findings, this study presents pertinent recommendations as follows:

The food and beverage firms should train their supplier evaluation committees or procurement managers on how best to evaluate the suppliers. This will enable the firms to get the right suppliers which will lead to harnessing the benefits associated with the practice that is shortened lead times, customer satisfaction and higher profit margins.

In measuring performance firms should be aware of all the performance measures and understanding what factors influence them to be able to deal with each one of them as it demands. For instance firms should take into consideration what criteria is related to performance and capitalize on them like the employee capabilities will lead to production of quality products.

Supplier evaluation is greatly influencing performance because of the positive relationship that the study unraveled therefore it could be useful for firms to take the practice to another level majorly embracing the highest scorers of positive relationship like environmental friendliness and employee capabilities and including those lagging like preference and reservation in order to equitably spread the available resources to everyone in the citizenly.

5.4 Limitations of the study

The study had the following limitations:

The respondents may not have disclosed important information probably for fear of victimization in case they were being spied or fearing to be copied by competitors hence limiting the researchers recommendations.

Some respondents did not fill and return the questionnaires. This affected the research since all the firms were expected to fill to make the results more plausible. At the same time, it could have been better if firms in areas within the country were included for divergent responses.

5.5 Suggestions for Further Research

The study indicates that supplier evaluation as a supply chain practice helps in improving the performance in large food and beverage manufacturing firms in Nairobi City County. It would be important to study other sectors to ascertain whether this still holds.

Financial stability of the supplier, supplier's organizational culture, quality issues and preference and reservation are insignificant in this study. It would be necessary to carry out a study to explain why each of them does not influence performance.

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APPENDICES

Appendix I: Letter of Introduction



UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA PROGRAMME

Telephone: 020-2059162
Telegrams: "Varsity", Nairobi
Telex: 22095 Varsity

P.O. Box 30197
Nairobi, Kenya

DATE 17/10/2014

TO WHOM IT MAY CONCERN

The bearer of this letter ROSE BOSIBORI KAMENYA

Registration No. DG1/72688/2012

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.



PATRICK NYABUTO
MBA ADMINISTRATOR
SCHOOL OF BUSINESS

APPENDIX II: QUESTIONNAIRE

This questionnaire seeks to collect information on the criteria used to evaluate suppliers and its relationship to performance in food and beverage manufacturing companies in Nairobi city County. Any information given will be exclusively used for this study and will be treated with utmost confidentiality.

Kindly fill it as sincerely as possible.

SECTION A: ORGANIZATIONAL PROFILE

Please tick () appropriately for better understanding of your organization

Does your company evaluate suppliers? YES NO

For how long has your organization been evaluating suppliers?

1 to less than 2 years	<input type="checkbox"/>
2 to less than 5 years	<input type="checkbox"/>
5 years and over	<input type="checkbox"/>

How would you classify the products your firm manufactures?

Food Beverages

SECTION B: SUPPLIER EVALUATION CRITERIA

Kindly indicate on a scale of 1-5 the extent to which the followingsupplier evaluation criteria are used by your firm where 1= very small extent; 2= small extent; 3= moderate extent; 4=to a great extent and = very great extent

Supplier evaluation criteria	Extent				
	1	2	3	4	5
Financial Stability of the supplier					
Quality issues					
Environmental friendliness of the supplier					

Supplier's Organizational Culture					
Price Factors					
Production Capacity of the supplier					
Employee Capabilities of the supplier					
Preference and Reservation					

SECTION C: Performance levels

Please indicate to what extent your firm realized the following performance levels by implementing supplier evaluation where; 1=very small extent; 2=small extent; 3= moderate extent;4=great extent; 5= very great extent.

Performance levels	Extent realized				
	1	2	3	4	5
Reduced the number of defects					
Reduced the number of reworks					
Reduced the number of returns inwards					
Reduced the overall cost of handling inventory					
Increased number of customer satisfied with service/year					
Reduced the administrative/ transactions cost due to reduced base					
Improved on time delivery					
Reduced time to the market of products					
Increased rate of new product introduction					
Led to cycle time reduction					
Reduced the number of customer complaints in a year					
Reduced stock-out level					

Increased number of on time delivery in a year					
Reduced number of warranty claims					
Reduced number of orders with complaint in a year					
Increased supply chain delivery reliability					
Utilize capacity well					
Reduced product cost					
Reduced overtime costs					
Reduced inspection costs					
Reduced supply base risks					
Reduced total manufacturing costs					
Increased compatibility with lean supply					
Motivated suppliers to improve quality					
Motivates supplier to reduce costs					
Improves collaboration between supplier and your organization					

THANK YOU VERY MUCH

Appendix III: Large Food and Beverage manufacturers in Nairobi

Aberdares Water Ltd	Kevian Limited
Alpine Coolers Ltd	Melvin Marsh International
Aqual Ltd	Mombasa Maize Millers Ltd
Aquamist Ltd	Nairobi Bottlers Ltd
Bio Foods Kenya	Nakumatt Healthy Foods Ltd
Blue Label	Nestle Foods Kenya Ltd
Breakfast Cereal Company Kenya Ltd	New Kenya Cooperative Creameries Ltd
Buseki Dairies	Pembe Industries Ltd
Cardbury Kenya and East Africa Ltd	Pepsi Cola
Chirag Ltd	Premier food Industries Ltd
Coca Cola Juices Ltd	Pristine Ltd
Deepys Industries Ltd	Proctor and Allan East Africa Ltd
East Africa Sea Foods Ltd	Safari Ltd
East African Breweries Ltd	Sameer Agriculture & Livestock Ltd
Energy Foods Ltd	Sierra Brewery
Excel Industries Ltd	The good water company Ltd
Farmers Choice Ltd	Tropical Heat Industries Ltd
House of Manji Ltd	Tru foods
Kapa oil refineries	Unga Ltd
Ken chic Ltd	Unilever Kenya Ltd
Kenafric Industries Ltd	Uzuri Foods Ltd
Kenya Sweets Ltd	W.E Tilly Ltd
Kenya Wines Agency Ltd	Wrigleys Company

Source (KAM, 2013)