

**SUPPLIER RELATIONSHIP MANAGEMENT AND OPERATIONAL  
PERFORMANCE OF SUGAR MANUFACTURING FIRMS  
IN KAKAMEGA COUNTY, KENYA**

**BY**

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## **DECLARATION**

I declare that this research project is my own original work and does not contain any material previously submitted for a Degree or Diploma in any university. It does not include any material published or written by any other person or group apart from legitimate, where legitimate reference is made as is in accordance with copy right laws and stipulations.

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### **Declaration by the University Supervisor;**

This research project has been presented for examination with my approval as the university supervisor.

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## **DEDICATION**

This research work is dedicated to all Master of Business Administration (Procurement and Supply Chain Management option) students of the academic year 2016/2017 with gratitude and affection.

## ABSTRACT

Sugar firms are a major employer and a revenue earner in Kenya. Sugar manufacturing firms in Kakamega County, Kenya have continuously experienced acute shortage of suppliers for key products and services. This has currently resulted in the sugar manufacturing firms to face a major crisis posed by high cost of production, capacity limit underutilization, absence of factory maintenance and poor transport framework. Sugar manufacturing firms in Kakamega County have not been able to reap the benefits of their engagement despite having a contractual relationship with their suppliers. This has made them suffer from losses brought about by high litigation costs as a result of delays in supplier payment and failure to meet the buyer's conditions at stipulated time. Critical review of studies revealed to the best of the researcher's knowledge that there is no single study which had examined the link between Supplier Relationship Management in terms of supplier appraisal, supplier development, supplier involvement and information sharing on operational performance. This study thus aimed to fill the evident research gap by exploring how Supplier Relationship Management affects the operational performance of sugar manufacturing firms in Kakamega County. The study specific objectives were: to find out the effect of supplier appraisal; supplier development; supplier involvement; and information sharing on the operational performance of sugar manufacturing firms in Kakamega County. The researcher employed descriptive cross sectional survey research design. The population of the study consisted of three sugar manufacturing firms in Kakamega County which included Mumias, West Kenya and Butali Sugar Companies. Primary data was gathered through use of quantitative approach. Both questionnaires and interview schedules were utilized to gather primary information from various managers in the sugar manufacturing firms. The Pearson Product Moment Correlation Coefficient was used to estimate the influence of Supplier Relationship Management constructs, that is; supplier appraisal, supplier development, supplier involvement and information sharing on operational performance of sugar manufacturing firms in Kakamega County. The study determined that Supplier Relationship Management practices are embraced in the sugar manufacturing firms in Kakamega County. The study also found out that there is a higher positive and significant relationship between operational performance and; information sharing ( $r=0.696$ ) followed by supplier development ( $r=0.623$ ) and supplier involvement ( $r=0.507$ ) all at 0.01 level of significance. The study however, established that there is a weak positive and significant relationship between supplier appraisal and operational performance ( $r=0.400$ ) at 0.05 level of significance. The study thus concluded that information sharing leads to a higher operational performance as compared to supplier development, supplier involvement and supplier appraisal. Based on the study findings and conclusion, the study recommends that sugar manufacturing firms in Kakamega County should invest much of their resources, that is, human, physical and financial in facilitating information sharing between the firm and suppliers in order to realize a very high improvement in the operational performance of the firms. Some of the mechanisms that can be strengthened include and not limited to: continuous information sharing between the company and suppliers; timely dissemination of data between the company and suppliers using networking; availing of personal communication between the company and suppliers; availing of suppliers' database; and allowing suppliers access to company's critical information.

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## **ABBREVIATIONS AND ACRONYMS**

<b>BUSCO</b>	Butali Sugar Company Limited
<b>IP</b>	Intellectual Property
<b>KSB</b>	Kenya Sugar Board
<b>MSC</b>	Mumias Sugar Company
<b>SCM</b>	Supply Chain Management
<b>SET</b>	Social Exchange Theory
<b>SRM</b>	Supplier Relationship Management
<b>TCET</b>	Transactional Cost Economics Theory

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Due to a lot of competition in the global world, firms have put more emphasis in not only on customer management but also in supplier management as a strategic direction towards building a competitive advantage for themselves. Effective and efficient Supplier Relationship Management (SRM) not only improves organization cash flow, it also generates the best satisfaction in building and strengthening supply chain relationship. Creating and maintaining good and sustainable Supplier Relationship Management is one of the philosophies of ensuring compliance with essential features such as partnership, proper risk management, respect, growth and development and developing new capabilities (Donoghue, 2011). McCutcheon and Stuart (2000) express that SRM is the exact, undertaking wide evaluation of suppliers' abilities and assets concerning general business technique, affirmation of what activities to partake in with different suppliers, organizing and execution of all coordinated efforts with product or service suppliers in an arranged way over the relationship life cycle keeping in mind the end objective is to increase the regard recognized through those collaborations. Operational performance in this setting is a measure of how proficient and compelling Supplier Relationship Management outcomes help in accomplishing hierarchical targets and objectives (Lawer, 2001). Operational performance can be conceptualized as far as purchaser's lessening in acquiring cost, supplier's operational and key execution and dynamic quality execution, advancement and budgetary execution. In a supply chain, relationship connections are not just utilized for associating the firm with suppliers but are also used to interface the association all through the inventory network of the supply chain (Sanders, 2005).

The research was underpinned by three main theories namely; Social Exchange Theory (SET), Transaction Cost Economics Theory (TCET) and Value Chain Theory. Social Exchange Theory studies the authoritative cooperation from social structure point of view as opposed to the transaction exchange relationship (Homans, 1958). SET proposes that any social associations evaluated utilizing money saving advantage examination and the

appraisal of options; hence, this implies parties will keep on being in a relationship as long as there is incorporated regard (Cropanzano and Mitchell, 2005). Christopher (2009) points out that Transaction Cost Economics Theory explains how a collaborative relationship is important for business partners because it shields them from harmful subsidiary as opposed to differing collaborative relationship, this implies that sugar manufacturing firms will be able to save on the cost of doing business. Value Chain Theory postulates that creation of competitive advantage in an organization is through effective management of activities along the value chain to provide quality services and products to customers (Porter, 1985). This theory in the study context means that well managed supplier relationship practices of appraisal, development, involvement and information sharing results in superior operational performance as a result of better services to customers, quality products, low cost of production and firms overall effectiveness and efficiency.

Inability of the sugar companies to reap the benefits of Supplier Relationship Management may therefore be one of factors contributing to poor operational performance of the sugar manufacturing firms in Kakamega County. This is attributed to poor networking of personnel and activities required to facilitate the organizing, scheduling and deploying of resources compared to other efficiently organized, planned, directed and controlled Supplier Relationship Management systems (Baily *et al.*, 2008). In Kakamega County, a region whose sixty percent of industrialization lies on the sugar manufacturing firms also absolutely feels the impact of supplier relationships activities since it has critical consequences on the performance of all the sugar manufacturing firms in the region. This study therefore aimed at filling this knowledge gap by investigating the relationship between Supplier Relationship Management and operational performance of sugar manufacturing firms in Kakamega County, Kenya.

### **1.1.1 Supplier Relationship Management**

Supplier Relationship Management is a comprehensive approach of taking care of a firm's association with its products and service providers (Harland, Knight, Lamming & Walker, 2005). SRM is one of the obtainment methodology adapted towards outlining operational, supplier management and vital acquisition forms. Organizations and suppliers' business practices collectively come in a working relationship through Supplier Relationship Management. SRM is along these lines an approach of thoroughly dealing with a firm's interactions with the providers that render any service and items and it uses.

Organizations that need to be successful should adopt Supplier Relationship Management in terms of supplier appraisal, supplier development, supplier involvement and information sharing to manage supplier relations. Cannon and Homburg (2001) indicate that in supplier appraisal, a prospective vendor applies to be placed on the buyer's approval list then the buyer evaluates the supplier capabilities. Supplier development is whereby two entities jointly plan and outline the long term initiatives such as forming joint ventures and penetrating the market or strategic alliances (Lysons and Farrington, 2006).

Supplier involvement is the extent to which a supplier can jointly work with its customer (Feng and Wang, 2013). There is a positive correlation between supplier involvement on performance and quality improvement in many companies across various industries. Information sharing is the frequent updating of data among the chain individuals for powerful Supply Chain Management (SCM). In this unusual and dynamic world, a business's life expectancy relies upon its capacity to get the right information at the ideal time. Supplier Relationship Management plays a critical role in an organization's performance because suppliers determine the price, quality, delivery, reliability and accessibility of its products and services.

### **1.1.2 Operational Performance**

An organization is a social entity that is made up of two or more parties in order to achieve its objectives. Operational performance is thus a measure of how well an organization achieves its desired objectives. Johnston *et al.*, (2004) demonstrates performance as financial and non-financial gains such as: improvement in profit margin, return on investment, growth in sales, lead time performance, growth in market shares, customer loyalty, improved responsiveness, innovation, quality products, improvements in process/product design, reduction in inventory and overall competitive position. Operational performance is thus a non-financial indicator of performance which in a manufacturing set up is an organization's execution measured against recommended pointers of natural obligation, proficiency and adequacy, for example, process duration, efficiency, squander lessening and administrative consistence (Inayatullah, Narain and Singh, 2012).

As far as Supplier Relationship Management is concerned, performance indicators can be in terms of delivery performance, cycle time and new product development time, flexibility, customer satisfaction and product availability. A potential supplier alliance leads to improvements in access to technology, reductions in transaction costs and technology transfer. This study adopted operational performance indicators in terms of level of efficiency, timeline in service delivery, cost reduction and quality products.

### **1.1.3 Sugar Manufacturing Firms in Kakamega County**

Kenya Sugar Industry Strategic Plan 2010 - 2014 outlines four main reasons why sugar companies were initially instituted by the Kenyan government. The sugar sub-segment holds a huge position in Kenya's Agrarian Sector; to begin with, the government wanted to achieve independence in sugar and its by-products such as animal feeds, industrial sugar and alcohol. Sugar is a major food and pharmaceutical additive and sweetener besides being a source of nutritive energy. Stick tops and molasses are vital dietary supplements for domesticated animals. Sugar and molasses are crude materials for the produce of sweet shops, pharmaceuticals, liquor and different refreshments. The second reason was for making of employment opportunities to the nation subjects.

The sugar business underpins more than six million Kenyans and is a noteworthy wellspring of wage for more than 250,000 little scale agriculturists who represent more than 85% of stick supply. Thirdly, the government needed to prevent rural urban migration by improving the socio-economic welfare of the rural population. The business straightforwardly and in a roundabout way utilizes more than 40,000 Kenyans in this manner checking the country's urban movement and advances rustic improvement through direct cooperation of the provincial families in sugar handling ranges. Lastly, saving the foreign exchange cost by the government through import substitution (KSB, 2013).

According to Kenya Sugar Board, the sugar industry in Kenya contributes greatly to economic and social development of the country by revenue generation to the government through taxation. This has led to the growth of agricultural Gross Domestic Product (GDP). The industry has also lead to urbanization through the growth of towns near sugar companies (KSB, 2013). Sugar companies in Kakamega County have experienced some challenges, for instance, there has been concerns by major suppliers in the sugar companies concerning delays in payment, poor farmers' relationship and sugar cane poaching by sugar companies located outside Kakamega County (Ooko, *et al.*, 2016).

This study concentrated on sugar manufacturing firms in Kakamega County. Kakamega County borders the following Counties: Busia County and Bungoma County on the West, Uasin Gishu County and Nandi County on the East, Trans Nzoia County on the North and Vihiga County on the South. The County experiences tropical climate with variations due to altitude that is conducive for growing of sugar cane. The County has three major sugar manufacturing firms namely: Mumias Sugar Company Limited (MSC), West Kenya Sugar Company Limited and Butali Sugar Company Limited (BUSCO). The government of Kenya has some shares in Mumias Sugar Company while the other two companies are privately owned (KSB, 2013).

MSC is situated approximately 30 kilometers (kms) from Kakamega town in Mumias East Sub County ([www.mumias-sugar.com](http://www.mumias-sugar.com)). The West Kenya Sugar Company Limited is

approximately 14 kms from Kakamega town on Kakamega-Webuye road (www.businesslist.co.ke) while BUSCO is located at Butali area, in Kakamega County and is about 35 kms from Kakamega town (minigrp.com). All the three sugar companies are on the outskirts of Kakamega town peripheral (KSB, 2013).

## **1.2 Research Problem**

The rationale behind Supplier Relationship Management is that its goal is to streamline and make more powerful the processes between a venture and its product and service providers (Kosgei & Gitau, 2016). Supplier Relationship Management which has gained relevance in the recent past has been fueled by the need to grow a better relationship with suppliers for better operational performance through reduction of procurement costs and delivering quality and reliable products and services.

Sugar firms are a major employer and a revenue earner in Kenya (KSB, 2013). Sugar manufacturing firms in Kakamega County, Kenya have continuously experienced acute shortage of suppliers for key products and services. This has currently resulted in the sugar manufacturing firms to face a major crisis posed by high cost of production, capacity limit underutilization, absence of factory maintenance and poor transport framework (Kegode, 2005). These difficulties have prompted low employees' efficiency as few out grower farmers are joining the companies, a low number of tonnes squashed every month, consistent clients' objections concerning poor service delivery conveyance and wastage of generation time prompting low organization execution (Rapando, 2011). Sugar manufacturing firms in Kakamega County have not been able to reap the benefits of their engagement despite having a contractual relationship with their suppliers. This has made them suffer from losses brought about by high litigation costs as a result of delays in supplier payment and failure to meet the buyer's conditions at stipulated time. This scenario has made the sugar companies to concentrate in areas which are non-core to their operations (Maraka, Kibet and Iravo, 2015).

Globally, Supplier Relationship Management and organizational performance has also been studied. Liker and Choi (2004) studied how car makers; Honda and Toyota portrayed supplier relationship and discovered that the organizations build up their

provider connections which prompt common advantages for both the provider and client. Park *et al.*, (2010) study of supplier management on Korean semiconductor manufacturing company found out that customary value-based system makes firms to achieve better performance.

Locally, Kamau (2013) in his study of key supplier management relationship models deduced that communication, trust, commitment, mutual goals and cooperation are key enter fixings in an effective relationship which thusly influence organization performance positively. Suppliers who failed to preserve proper records had increased costs in procurement and long cycle times. This can result to poor organization performance due to enterprises failing to maintain good relationships with their suppliers. Tangus *et al.*, (2015) examined the effect of Supplier Relationship Management practices on performance of manufacturing firms in Kisumu County, Kenya while Wachira (2013) study discovered that communication, trust, chance evaluation and administration and strategic supplier association were the basic relationship features resulting in an improved organizational performance. The mentioned studies were limited in scope of the variables used to operationalize Supplier Relationship Management that this study sought to bridge.

A number of studies have been conducted in sugar companies in Kakamega County. For example, previous studies done by Ooko, Manyasi and Ondiek (2016) and Rapando (2011) found out that sugar manufacturing firms in Kakamega County are in brink of collapse hence this calls for urgent measures to address the situation. A more recent study conducted in sugar companies is by Maraka, Kibet and Iravo (2015) on Supplier Relationship Management on organization performance in selected sugar companies in Western Kenya. Critical review of the studies above revealed to the best of the researcher's knowledge that there is no single study which had examined the link between Supplier Relationship Management in terms of supplier appraisal, supplier development, supplier involvement and information sharing on operational performance. This study thus sought to fill the evident research gap by investigating how Supplier

Relationship Management affects the operational performance of sugar manufacturing firms in Kakamega County.

The following research questions were answered by the study: Is there any relationship between Supplier Relationship Management and sugar manufacturing firms' operational performance in Kakamega County? What are some of the benefits in terms of operational performance from utilizing Supplier Relationship Management?

## **1.3 Research Objectives**

### **1.3.1 General Objective**

This study aimed to investigate the relationship between Supplier Relationship Management and operational performance of sugar manufacturing firms in Kakamega County.

### **1.3.2 Specific Objectives**

Specifically, the study sought to achieve the following objectives:

- i. To find out the effect of supplier appraisal on the operational performance of sugar manufacturing firms in Kakamega County.
- ii. To assess the impact of supplier development on the operational performance of sugar manufacturing firms in Kakamega County.
- iii. To establish how supplier involvement impacts operational performance of sugar manufacturing firms in Kakamega County.
- iv. To investigate the effects of information sharing on the operational performance of sugar manufacturing firms in Kakamega County.

## **1.4 Value of the Study**

The study will add to the existing body of literature on Supplier Relationship Management. Other scholars, researchers and academicians may validate the empirical findings of the study and use it as a reference material. They may also carry out research on the recommended area of further study.

The study will be useful to the national, county governments and other organizations together with their policy-making agencies as they will optimize operational performance by developing policy guidelines on Supplier Relationship Management as stipulated by the study.

Finally, sugar manufacturing firms especially in Kakamega County will use the study findings and recommendations to better their operational performance as a result of adopting Supplier Relationship Management.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter reviewed selected conceptual and empirical literature on the key study variables with an aim of highlighting the existing research gaps. The chapter specifically examined the literature on the rationale of Supplier Relationship Management and operational performance. It also covered the relationship between Supplier Relationship Management and operational performance of the sugar manufacturing firms in Kakamega County, Kenya. This chapter ended by discussing the summary of knowledge gaps that the study aimed to fill.

### **2.2 Theoretical Framework**

The research was guided by three main theories which are: Social Exchange Theory, Transaction Cost Economics Theory as well as Value Chain Theory.

#### **2.2.1 Social Exchange Theory**

Social Exchange Theory (SET) as advanced by Homans (1958) focuses on the social structure association as opposed to transactional based on cost-benefit examination. Cropanzano & Mitchell (2005) point out that the relationship between the various actors will only thrive if and only if it is beneficial to both the parties. Homans (1958) affirms that the main aim of SET is to establish the associations between inter-organizational based on social structures as opposed to transactional benefits. SET is applicable in choosing strategies for suppliers. SET helps in choosing a preferred supplier who is not merely a regular or an exit supplier thus guarantying regular supply of products and services to the organization. This means that the theory was appropriate for this study in that it will aid sugar manufacturing firms in Kakamega County in obtaining constant supply of raw materials from their loyal suppliers as a result of good supplier-buyer relationship thereby resulting to improved operational performance.

### **2.2.2 Transaction Cost Economics Theory**

The theory helps business partners make informed decisions of whether to outsource or not. The decisions are based on make-or-buy decisions (Christopher, 2009). Fink *et al.*, (2006) showed that uncertainties caused by external environment and cost are the primary drivers of the theory. Sugar companies in Kenya thus face a lot of uncertainties necessitating the need of applying this theory to shield them from extra supplier costs. The study utilized this theory because it will aid the companies to acquire dependable suppliers who will ensure that sugar manufacturing firms in Kakamega County get constant supply of raw materials and services needed for production process. This would eliminate extra costs brought about by shortage of raw materials especially sugarcane. In the long run, the production cost in the sugar companies would be reduced resulting to improved operational performance.

### **2.2.3 Value Chain Theory**

Value chain theory was propagated by Michael Porter in 1985 in his book “Competitive Advantage: Creating and Sustaining Superior Performance.” Porter describes value chain as an arrangement of exercises that an organization carries out to create value for its customers thus making it have a competitive position. In applying this theory, the study evaluated Supplier Relationship Management practices of supplier appraisal, supplier development, supplier involvement and information sharing and related it to operational performance in terms of level of efficiency, timeline in service delivery, cost reduction and quality products. According to Porter, survival of the sugar manufacturing firms is based on how well they will manage the supplier relationship elements for superior operational performance. This theory stresses that for an organization to realize a high profit margin depends on its abilities to link the various activities in the value chain in order to deliver quality services and products that customers are willing and able to afford (Porter, 1985).

## **2.3 Supplier Relationship Management**

Herrmann and Hodgson (2001) described Supplier Relationship Management as a procedure associated with overseeing favored suppliers and finding new potential ones while diminishing costs, pooling purchaser encounter, separating the advantages of supplier partnerships and making procurement predictable and repeatable. Various studies have also examined the different elements of Supplier Relationship Management like supplier collaboration, supplier integration and supplier performance management. This study thus concentrated only on supplier appraisal, supplier development, supplier involvement and information sharing as elements of SRM.

### **2.3.1 Supplier Appraisal**

Supplier appraisal is the process of evaluating and approving potential suppliers using qualitative or quantitative assessment. SRM is a procedure of measuring and observing the execution of current suppliers. Supplier appraisal is the evaluation process of finding out whether a supplier meets buyers' requirements reliably after a prospective vendor applies for placement in the buyers list of pre-qualified suppliers. Saleemi (2007) proposes eight perspectives of evaluating a potential supplier that includes; production capacity and facilities, finance, human resource, performance, quality, environmental and ethical factors, innovation and design and information technology. These criteria are important because they determine whether the prospective supplier is competent and capable enough to perform the work within the stipulated schedule time, budget and required safety and quality standards.

Arsan (2011) noted that desk appraisal using published and unpublished information of the supplier can be used to appraise supplier products, services and financial ability to provide the needed products and services. An organization can supplement desk appraisal with field research especially for high and risky value products for long-term collaborative relationship. Any organization can also use third party appraisal and conduct field visits to the supplier sites (Arsan, 2011). Mutual benefits between the organization and the supplier are only derived if and only if both of them cooperate actively to provide necessary inputs and support.

### **2.3.2 Supplier Development**

Supplier development is a strategy of working with particular providers on a balanced premise to upgrade their execution and capacities with respect to the upside of the acquiring affiliation. Supplier development activities are described as the most important effort that an organization undertakes to develop suppliers for long term partnership and relationship enhancement and also to gain competitive advantage. According to Wenli *et al.*, (2012) supplier development is a cooperation that seeks continuous improvement between a buyer and a supplier for superior performance of an organization geared towards strengthening the buyer's competitive advantage. There are two objectives of supplier development; to prevent suppliers from making immediate changes in their operations and to increase their capabilities for improvement.

Previous studies on supplier development have linked it to organization performance in terms of; cost reduction, quick order fulfillment, customer satisfaction and fast delivery (Khuram, Ilkka, Elina & Shpend, 2016). Firms with supplier development programs enjoy global competitive advantage as a result of long-term relationship with its suppliers. Firms are more industrious in provider change programs not solely to continue long haul association with their providers but also to grow deliberately overall upper hand. Supplier participation makes purchasers more effective empowering products to be bought at bring down costs and furthermore makes a purchaser focused by searching for his center competency. Supplier development practices are an important component of SCM which plays a very key role for bringing improvement in buyer-supplier performance.

### **2.3.3 Supplier Involvement**

Supplier involvement is the extent to which an organization can jointly work with its suppliers in areas such as; internal processes like product design and development involving some degree of risks therefore the buying organization must have solid fundamental relationship with a supplier before implementing supplier involvement initiatives (Feng and Wang, 2013). Supplier involvement has some inherent limitations in that it may lead to high dependence on the supplier, especially if the supplier has a

market leading status in terms of high technological capabilities meaning that the supplier can commit to the buyer's unique specifications hence the high risk of information asymmetry (Melander, Rosell and Lakemond 2014). In some cases, the supplier may be over-empowered limiting the buyer possibility of exercising a joint development effort control thus the buyer may risk losing his Intellectual Property rights (IP) to the supplier's hand. To avoid the instances of buyers excessive control needs to the supplier which can suppress supplier's freedom and capability to be innovative, both the parties need to cultivate mutual trust and strike a balance between control and empowerment in buyer-supplier relationship.

Despite the aforementioned risks, Melander *et al.*, (2014) highlighted some benefits of supplier involvement which includes; greater responsiveness, shorter lead/cycle times, reduced costs (in production, development and marketing) and better change control. On the inter-organizational level, supplier involvement is responsible for creating an interactive platform for information exchange and knowledge sharing and also encouraging collaborative problem-solving mindset and conduct among staff. Past studies have found a positive correlation between supplier involvement on organization performance and quality improvement in many companies across various industries especially manufacturing companies. This is because manufacturing companies mostly rely on their production capacity, advanced and rigorous technologies to sustain their competitive advantage.

### **2.3.4 Information Sharing**

Kearney (2013) asserts that having the right information on suppliers is imperative to ascertaining supplier's performance. Effective two-way communication is essential to successful supplier relationship due to its creating of rich knowledge in the supply chain. Data sharing is basic because of its need in giving the company's information to their store network accomplices all together for "operational connectivity" of an activity to happen. Firms that are key in their operations need to furnish each other with a scene of information for example, deals conjectures, stock levels, deals advancement procedures, showcasing plans, generation runs and criticism to providers from provider assessment in

this manner diminishing vulnerability amongst firms and associations and to legitimately get ready for their own particular shared business needs.

Past studies have linked information sharing in supply chain to organization performance. Anderson and Weitz (1992) affirm that the sharing of data prompts expanded responsibility between supply chain accomplices. Data sharing outcomes in item quality and making less demanding advances while taking part in new item improvement ventures. Information sharing encourages cooperation and commitment which helps the buyer and seller adapt to supply chain processes. Data sharing adds to the change in perceivability between firms, stock administration and generation arranging.

## **2.4 Operational Performance**

Performance of an organization is a primary step that enables it to know its weaknesses and strengths hence come up with corrective measures. Performance can be measured in financial or an operational point of view. As per Inayatullah, Narain and Singh (2012) operational execution of an organization incorporate productivity in the authoritative procedures measured as far as the cost of exchanges, quality, cost of the stock and services and time. Other operational indicators of performance are receptiveness and straightforwardness of the procurement system in terms of fairness of participants as well as capacity to get and utilize new technologies and capability to react fast to variations in schedules. This study adopted operational performance indicators in terms of level of efficiency, timeline in service delivery, cost reduction and quality products.

### **2.4.1 Level of Efficiency**

Most organizations according to MacPherson *et al.*, (2004) view their performance in terms of 'effectiveness' in the achievement of its vision, mission, goals and objectives while some view their performance in terms of 'efficiency' in deployment of the organizational resources, that is, human, financial and physical resources. In order for any organization to be viable and competitive, it needs to use its resources optimally thus avoiding wastage.

### **2.4.2 Timeline in Service Delivery**

Service conveyance is an enveloping action directed at advancing the general welfare of a group of people in society. Lead time refers to the amount of time that elapses between when a process starts and when it is completed (Rajaniemi, 2012). In SCM, lead time refers to the amount of time that passes between a buyer placing an order with the supplier and receiving their product. One way that an organization can use to improve its profitability is by reducing inventory lead time.

### **2.4.3 Cost Reduction**

Participation with providers which is a fixing in Supplier Relationship Management can make a purchaser more effective and along these lines obtaining products at bring down costs. A study conducted by Khuram, Ilkka, Elina & Shpend (2016) determined that supplier development leads to an increase in organization performance in terms of cost reduction, customer satisfaction and faster delivery of products.

### **2.4.4 Quality Products**

Ambe & Badenhorst-Weiss (2012a) remarked that “in the public sector, Supply Chain Management in organizations is used as an instrument to enhance quality service delivery to citizens.” This means that an organization with proper Supplier Relationship Management is better placed to deliver quality products and services to its stakeholders. Supplier quality requirements should cover four broad areas: quality measurement, management, facilities, safety and training.

## **2.5 Relationship between Supplier Relationship Management and Operational Performance**

According to Kilpatrick and Ron (2000) the short-term objective of Supplier Relationship Management is to decrease stock and process duration and to expand profitability while its long term destinations are to build benefits for all partners of the store network and the piece of the overall industry. Off late, purchasing is a vital capacity and a key factor towards aggressive situating of the firm. Organizations with collaborative business relationships have an upper hand of responding to the new business environment by

focusing on their core businesses and reducing business costs. Supplier Relationship Management thus plays an essential role in optimization of operational performance in an organization through the reduction of costs.

Tracking operational performance for continuous improvement is necessary in measuring and following how well an organization is addressing challenges from all aspects of the business and their key performance indicators. Baily *et al.*, (2008) explains that an organization which practices SRM has an improved supply chain performance. Liker and Choi (2004) noted that a commercial or humanitarian organization that practices Supplier Relationship Management has increased quality, improved efficiency and high performance. Organizations which wish to be competitive should build and keep up long term associations with their central providers by dealing with the supplier execution, sharing data and utilizing data innovation in SCM. Realization of the Supplier Relationship Management process is dependent on procurement function skill in managing expenditure for the organization.

## **2.6 Summary of Knowledge Gaps**

Liker and Choi (2004) study of Supplier Relationship Management and organization performance described how Japanese car makers, Honda and Toyota are developing their supplier relationships which prompts common advantages for both the supplier and customer. Park *et al.*, (2010) conducted a study on Korean semiconductor manufacturing company and evolved a model for Supplier Relationship Management which integrated supplier administration functions such as: defining procurement strategies, collaboration, supplier evaluation and management for continuous improvement in an organization. These studies were limited in scope because Liker and Choi study used organizational performance but this study narrowed down to operational performance. Also Parker *et al.*, study focused on supplier management, collaboration, selection and purchasing strategies as indicators of supplier management practices but this study adopted Supplier Relationship Management practices of supplier appraisal, supplier development, supplier involvement and information sharing.

Kamau (2013) concluded that buyer-supplier relationships had assisted the large manufacturing companies in Nairobi, Kenya to enhance the performance of their organizations. The study dwelled on organization performance while this study concentrated on operational performance. The sector of the study was also specific, in sugar manufacturing industry instead of manufacturing companies in general and also the study was conducted in Kakamega County and not in Nairobi County. Tangus *et al.*, (2015) analyzed the effect of Supplier Relationship Management practices on performance of manufacturing firms in Kisumu County, Kenya. The study concentrated on organizational performance but this study handled operational performance. A more recent study carried on sugar companies is by Maraka, Kibet and Iravo (2015) about Supplier Relationship Management on organization performance in selected sugar companies in Western Kenya. Maraka *et al.*, (2015) study was limited in scope of the variables used to operationalize Supplier Relationship Management that this study sought to bridge.

Critical review of the studies above revealed to the best of the researcher's knowledge that none examined the link between Supplier Relationship Management in terms of supplier appraisal, supplier development, supplier involvement and information sharing on operational performance. This study thus sought to fill the evident research gap by investigating how Supplier Relationship Management affects the operational performance of sugar manufacturing firms in Kakamega County, Kenya.

## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter presents the research methodology that was used in the study. It entails the research design, population of the study, sample and sample design, data collection procedures and instruments as well as data analysis and presentation.

### 3.2 Research Design

The researcher adopted a descriptive cross sectional survey research design to achieve the objectives of the study. Kothari and Garg (2014) observed that descriptive design is a fact finding enquiries of different kinds, where the researcher has no control of the variables under the study and can only report what is happening or what has happened. Descriptive research design was therefore appropriate for this study because it enabled the researcher to describe the situation and also establish the relationship if any between the variables.

### 3.3 Population of the Study

According to Mugenda and Mugenda (2003) target population is the total group of individuals from which the sample might be drawn. The study population was drawn from the three sugar manufacturing firms in Kakamega County namely; Mumias Sugar Company Limited, West Kenya Sugar Company and Butali Sugar Company as shown in the table below;

**Table 3.1:** Target Population

S/No.	Company	Target Group	Target Population
1.	Mumias Sugar Company	Managers	48
2.	West Kenya Sugar Company	Managers	35
3.	Butali Sugar Company	Managers	22
<b>Total</b>			<b>105</b>

**Source:** HR departments of Mumias, West Kenya and Butali Sugar Companies, (2017)

### 3.4 Sample and Sample Design

The stratified random sampling method was applied to determine the sample size, because the population found in the three sugar manufacturing firms was considered

heterogeneous. This, as Cooper and Schindler (2003) explain, ensures that each firm is properly represented.

Next, a sample of 30% was picked from each layer through the process of simple random sampling. Kothari (2004) points out that “a representative sample is one which is at least 30% of the population.” The sample selected is as indicated in the Table 3.2.

**Table 3.2: Sampling Frame**

S/No.	Company	Target Population	Percentage from Target Population	Sample Size
1.	Mumias Sugar Company	48	30%	14
2.	West Kenya Sugar Company	35	30%	11
3.	Butali Sugar Company	22	30%	7
<b>Total</b>		<b>105</b>	<b>30%</b>	<b>32</b>

**Source:** Author, (2017)

### 3.5 Data Collection

This study focused on collecting primary data which was obtained directly from the respondents by use of questionnaires and interview schedules. Questionnaires were floated to the three sugar manufacturing firms by the researcher for the target population to fill. Key individuals in particular managers from the following divisions; Agriculture, Factory/Manufacturing, Commercial/Marketing and Business, Finance, Legal Affairs, Supply Chain (Stores, Procurement and Warehouse), Corporate Affairs and Strategy, Corporate and Quality Assurance, Audit, Fleet/Transport, Risk and Compliance and General Administration of the various sugar manufacturing firms were interviewed. The main reason for the choice of the respondents above is that these categories of respondents were likely to exhibit an elaborate Supplier Relationship Management philosophy. They also understand better the effect of Supplier Relationship Management on the operational performance of their organization.

The researcher collected data by use of a structured questionnaire that was administered by “drop and pick” method. The researcher’s questionnaire was in the form of Likert scale where respondents were required to indicate their views on a scale of 1 to 5 representing; [1] – Very great extent, [2] – Great extent, [3] – Moderate extent, [4] – Small extent and [5] – Very small extent.

### 3.6 Data Analysis

Before the responses were processed, the researcher edited the completed questionnaires to ensure completeness and consistency. All the responses were added up, the percentages of variations in the responses computed, described then the data interpreted according to the study's objectives. As appropriate, tables and other graphical presentations were used for presenting the data collected. This was for the ease of understanding as well as analysis.

Part A showing the different constructs of Supplier Relationship Management was analyzed using descriptive statistics especially means and standard deviation.

Finally, the researcher analyzed Part B of the questionnaire using inferential statistics by use of correlation and regression analyses. Product Moment Correlation Coefficient was used to test the strength of the relationship between Supplier Relationship Management and operational performance while multiple regression model was used as a basis of rejecting or accepting the research hypotheses. Analysis of the data was based on the research objectives and hypothesis which were analyzed by use of correlation and regression analysis respectively.

The researcher multiple regression model was in the form of:

$$P = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e. \text{ Where:}$$

P = Operational Performance

$\alpha$  = the P Intercept when X is zero

$\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$ , are regression coefficients of the following variables respectively;  $X_1$  = Supplier Appraisal;  $X_2$  = Supplier Development;  $X_3$  = Supplier Involvement and  $X_4$  = Information Sharing

e = Error term.

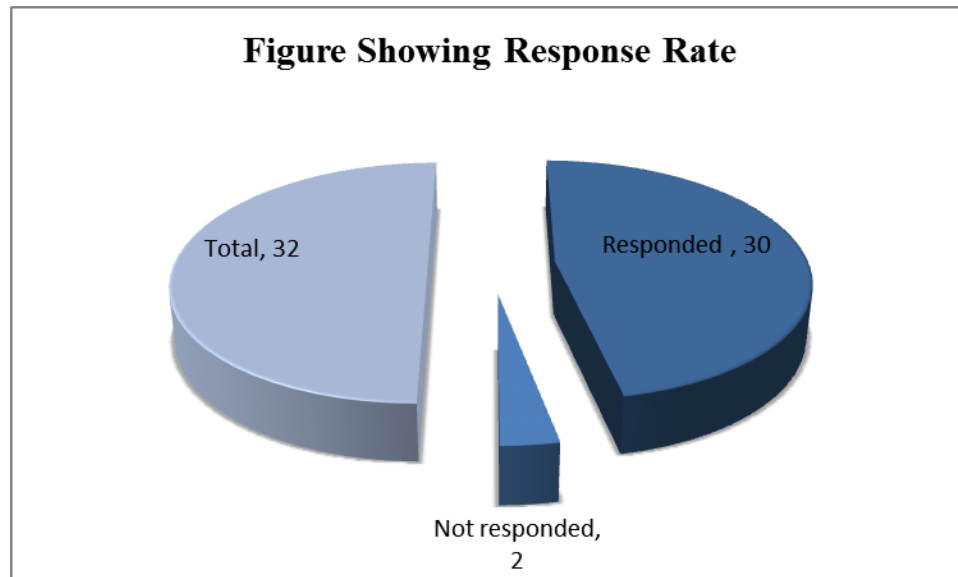
## CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

### 4.1 Introduction

This chapter presents the results and discussion of the research based on the study objectives. It contains response rate, descriptive and inferential statistics analysis on the effect of the relationship between Supplier Relationship Management and Operational Performance of Sugar Manufacturing Firms in Kakamega County.

### 4.2 Response Rate

**Figure 4.1:** Response Rate



**Source:** Field data (2017)

A total of 32 questionnaires were given out to the respondents out of which 30 questionnaires were successfully returned. This represents a response rate of 93.75% that is considered adequate to be used for data analysis. Babbie (2004) asserted that return rates of 50% are acceptable, 60% is good and 70% is very good to analyze and publish research findings. The study response rate is thus considered very good to analyze and publish research findings.

### 4.3 Extent to which Sugar Manufacturing Firms have embraced Supplier Relationship Management techniques

The study was aimed at investigating the relationship between Supplier Relationship Management and operational performance of sugar manufacturing firms in Kakamega County. The techniques analyzed included; supplier appraisal, supplier development, supplier involvement and information sharing. The researcher used a five-point Likert scale showing to what extent the respondents disagree or agree with the researcher statements regarding the research variables. The five-point Likert scale had values from 1 to 5 where 1, 2, 3, 4 and 5 meant: Very great extent, Great extent, Moderate extent, Small extent and Very small extent respectively. The researcher used the cumulative mean to interpret the results (Bryman & Bell, 2011). A mean of  $\leq 2.4$  means great extent, 3 moderate extent and  $>3$  means small extent.

#### 4.3.1 Supplier Appraisal

Table 4.1 shows the minimum, maximum, mean and standard deviation of the constructs of supplier appraisal used to determine whether the sugar firms apply supplier appraisal techniques in managing their supplier relationship.

**Table 4.1:** Table showing the extent to which Sugar Manufacturing firms have embraced Supplier Appraisal

Supplier Appraisal	N	Min	Max	Mean	Std
Frequency of supplier visit to the facility before pre-qualification	30	1	4	1.5000	.93772
Benchmarking of suppliers by the company	30	1	3	1.4667	.62881
Use of third party appraisal methods via agencies in supplier appraisal	30	1	4	1.5333	.81931
Use of desktop method in supplier appraisal	30	1	5	1.7000	1.05536
Supplier evaluation is based on financial, production and human resource capabilities	30	1	2	1.3667	.49013
<b>Valid N (list wise)</b>	<b>30</b>				

Source: Field data (2017)

Results in Table 4.1 indicate that supplier appraisal is applied in the sampled sugar firms as shown by the respondents agreement at a greater extent (mean<2.4). Supplier appraisal techniques practiced by the firms entails the following: frequency of supplier visit to the facility before pre-qualification; benchmarking of suppliers by the company; use of third party appraisal methods via agencies in supplier appraisal; use of desktop method in supplier appraisal; and supplier evaluation is based on financial, production and human resource capabilities. The study results indicated that supplier appraisal which is an element of Supplier Relationship Management practices is carried out in sugar firms in Kakamega County thus these findings are in concomitant with research scholars like Saleemi (2007) and Arsan (2011) who demonstrated that organizations manage their supplier relationship through the practice of supplier appraisal.

### 4.3.2 Supplier Development

Table 4.2 shows the minimum, maximum, mean and standard deviation of the constructs of supplier development used to measure the level of Supplier Relationship Management.

**Table 4.2:** Table showing the extent to which Sugar Manufacturing firms have embraced Supplier Development

Supplier Development	N	Min	Max	Mean	Std
Development of supplier technology by the company	30	1	5	1.9333	1.01483
The organization financially empowers suppliers	30	1	4	1.6667	.80230
Collaboration with suppliers for long term relationship	30	1	5	1.7667	1.19434
Development of supplier production capacity by the company	30	1	2	1.1000	.30513
Provision of legal advice services to suppliers by the company	30	1	5	2.3333	1.56102
<b>Valid N (list wise)</b>	<b>30</b>				

**Source:** Field data (2017)

From the study findings in Table 4.2, it is clearly evident that all the research study statements on supplier development have a mean of less than 2.4 which translate to agreement by a greater extent that supplier development is practiced in the sampled sugar firms. This is shown by the respondents' agreement that their firm: develop their supplier technology; financially empower suppliers; collaborate with suppliers for long term relationship; develop their supplier production capacity; and provide legal advice services to suppliers. The respondents sentiments echoes the fact that Supplier Relationship Management is practiced by the firms through constant development of their supplier capabilities which agrees with past researchers who found out that managing supplier relationship can be best achieved through supplier development (Wenli *et al.*, 2012; Khuram, Ilkka, Elina & Shpend, 2016).

### 4.3.3 Supplier Involvement

Table 4.3 depicts the minimum, maximum, mean and standard deviation of the statements on supplier involvement used to determine whether the sugar firms apply it as a technique for managing their supplier relationship.

**Table 4.3:** Table showing the extent to which Sugar Manufacturing firms have embraced Supplier Involvement

Supplier Involvement	N	Min	Max	Mean	Std
Suppliers involvement in specification preparation	30	1	3	1.3000	.53498
Availability of joint planning and meetings between the company and suppliers	30	1	5	1.9667	1.24522
The company employees group approach as a way to SRM	30	1	4	1.5667	.85836
Consideration to the interdependence of company's supply chain	30	1	2	1.3667	.49013
Involvement of suppliers in supply chain decisions	30	1	2	1.5000	.50855
<b>Valid N (list wise)</b>	<b>30</b>				

**Source:** Field data (2017)

Results in Table 4.3 indicate that sugar firms involve their suppliers as a method of improving their relationship with them. This was illustrated by the respondents agreement to a greater extent (mean<2.4) that the following supplier involvement techniques are practiced in their firm: suppliers involvement in specification preparation; availability of joint planning and meetings between the company and suppliers; employees group approach as a way to Supplier Relationship Management; consideration to the interdependence of company's supply chain; and involvement of suppliers in supply chain decisions. The results concurred with the reviewed literature on supplier involvement as a mechanism of managing supplier relationship by scholars such as Feng and Wang (2013) and Melander, Rosell and Lakemond (2014)

#### 4.3.4 Information Sharing

Table 4.4 shows the minimum, maximum, mean and standard deviation of the constructs of information sharing which is a determinant of Supplier Relationship Management.

**Table 4.4:** Table showing the extent to which Sugar Manufacturing firms have embraced Information Sharing

<b>Information Sharing</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std</b>
Mutual information sharing between the company and suppliers on supply issues	30	1	4	1.7000	.70221
Timely dissemination of data between the company and suppliers using networking	30	1	3	1.5000	.62972
Availability of personal communication between the company and suppliers	30	1	4	1.5667	.85836
Availability of suppliers' database	30	1	2	1.3667	.49013
Suppliers access to company's critical information	30	1	2	1.5000	.50855
<b>Valid N (list wise)</b>	<b>30</b>				

**Source:** Field data (2017)

On information sharing, Table 4.4 study findings opines that respondents agreed to a greater extent (mean<2.4) that information sharing is vital in the process of Supplier

Relationship Management process. This can be depicted by the fact that the firm embraces the following ways of sharing information with their suppliers: mutual information sharing between the company and suppliers on supply issues; timely dissemination of data between the company and suppliers using networking; availability of personal communication between the company and suppliers; availability of suppliers' database; and suppliers' access to company's critical information. The study findings on information sharing as an important ingredient of Supplier Relationship Management techniques is argued very well by researchers like Kearney (2013) and Weitz (1992).

#### 4.3.5 Operational Performance and Supplier Relationship Management

Table 4.5 shows the minimum, maximum, mean and standard deviation of the extent at which operational performance is affected by Supplier Relationship Management.

**Table 4.5:** Table Showing Operational Performance and Supplier Relationship Management

<b>Operational Performance and Supplier Relationship Management</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std</b>
Suppliers deliver quality products that improve the company's operational performance	30	1.00	2.00	1.2000	.40684
There is shorter lead time towards service delivery as a result of good supplier-buyer relationship	30	1.00	3.00	1.2667	.58329
Increased efficiency due to information sharing between suppliers and the company	30	1.00	3.00	1.2000	.48423
Reduced operational cost due to suppliers' involvement in the company's decision making	30	1.00	2.00	1.1667	.37905
Real time delivery of supplies due to developed supplier capability	30	1.00	3.00	1.3333	.66089
In general, Supplier Relationship Management leads to better operational performance	30	1.00	2.00	1.1000	.30513
<b>Valid N (list wise)</b>	<b>30</b>				

**Source:** Field data (2017)

Since the Table 4.5 results have a mean of less than 2.4, it implies that Supplier Relationship Management leads to operational performance to a greater extent. This is shown by the respondents' agreement that: suppliers deliver quality products that improve

the company's operational performance; there is shorter lead time towards service delivery as a result of good supplier-buyer relationship; increased efficiency due to information sharing between suppliers and the company; reduced operational cost due to suppliers' involvement in the company's decision making; real time delivery of supplies due to developed supplier capability; and in general, Supplier Relationship Management leads to better operational performance. This result replicates past studies which found out that Supplier Relationship Management leads to better organization performance (Kilpatrick and Ron, 2000; Choi, 2004; Baily *et al.*, 2008).

## 4.4 Relationship between Supplier Relationship Management and Operational Performance

### 4.4.1 Correlation Results

**Table 4.6:** Table showing Supplier Relationship Management and Operational Performance of Sugar Manufacturing Firms in Kakamega County Correlation Results

		Operational Performance
Supplier Appraisal	Pearson Correlation	.400*
	Sig. (2-tailed)	.029
	N	30
Supplier Development	Pearson Correlation	.623**
	Sig. (2-tailed)	.000
	N	30
Supplier Involvement	Pearson Correlation	.507**
	Sig. (2-tailed)	.004
	N	30
Information Sharing	Pearson Correlation	.696**
	Sig. (2-tailed)	.000
	N	30
Operational Performance	Pearson Correlation	1
	Sig. (2-tailed)	
	N	30

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

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

Source: Field data (2017)

Study results in Table 4.6 depict the following: there is a higher positive and significant relationship between information sharing and operational performance ( $r=0.696$ ), followed by supplier development and operational performance ( $r=0.623$ ) and supplier involvement and operational performance ( $r=0.507$ ) all at 0.01 level of significance.

The study however, found out that there is a weak positive and significant relationship between supplier appraisal and operational performance ( $r=0.400$ ) at 0.05 level of significance.

In general, it can be deduced that Supplier Relationship Management is positively and significantly correlated to operational performance since all the constructs of Supplier Relationship Management of information sharing, supplier development, supplier involvement and supplier appraisal positively and significantly correlated with operational performance. The study findings are in agreement with past researchers who found out that Supplier Relationship Management is positively and significantly related to organization performance (Arsan, 2011; Wenli *et al.*, 2012; Khuram, Ilkka, Elina & Shpend, 2016; Weitz, 1992; Kilpatrick and Ron, 2000; Choi, 2004; Baily *et al.*, 2008).

#### **4.4.2 Regression Results**

The results in Tables 4.7, 4.8 and 4.9 below show the test of hypothesis on the relationship between Supplier Relationship Management and operational performance of sugar manufacturing firms in Kakamega County. The tables below have the model summary, ANOVA and coefficient of determination for the purpose of either rejecting or failing to reject the study hypotheses. The  $F$  – statistic generated by regression results was used to test the goodness of fit of the research variables (Hoe, 2008). The study used the correlation  $r$  (Beta,  $\beta$ ) to test the hypotheses rejection or failing to reject criteria. The test criteria is set such that the study rejects the null hypotheses if  $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq 0$ , otherwise the study will have failed to reject the null hypothesis if  $\beta_1 = \beta_2 = \beta_3 = \beta_4 = 0$  (Elam, 1979).

**Table 4.7:** Table showing Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.735 <sup>a</sup>	.540	.466	.49445

a. Predictors: (Constant), Information Sharing, Supplier Involvement, Supplier Appraisal, Supplier Development

**Source:** Field data (2017)

Study finding results in Table 4.7 of model summary show that there is a strong positive relationship between Supplier Relationship Management constructs like supplier appraisal, supplier development, supplier involvement and information sharing on firm operational performance ( $R=0.735$ ). These study findings concur with past researchers findings that Supplier Relationship Management is positively correlated with performance of an organization (Kilpatrick and Ron, 2000; Choi, 2004; Baily *et al.*, 2008). The study findings also reveal that Supplier Relationship Management accounts for 54% of the firm's operational performance and the rest 46% of the firm operational performance is as a result of other factors a part from Supplier Relationship Management ( $R^2=0.540$ ).

**Table 4.8:** Table showing ANOVA Results

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7.162	4	1.791	7.324	.000 <sup>b</sup>
	Residual	6.112	25	.244		
	<b>Total</b>	13.274	29			

a. Dependent Variable: Operational Performance

b. Predictors: (Constant), Information Sharing, Supplier Involvement, Supplier Appraisal, Supplier Development

**Source:** Field data (2017)

ANOVA results in Table 4.8 indicate that the overall multiple regression model is feasible in measuring the relationship between Supplier Relationship Management and firm operational performance. This is shown by a significant F-statistical test (F=7.324; p=0.000).

**Table 4.9:** Table showing Coefficients Results

Model	Coefficients <sup>a</sup>					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
(Constant)	-.138	.382		-.360	.722	
1	Supplier Appraisal	.435	.188	.400	2.30	.029
	Supplier Development	.784	.186	.623	4.210	.000
	Supplier Involvement	.637	.205	.507	3.111	.004
	Information Sharing	1.168	.227	.696	5.136	.000

a. Dependent Variable: Operational Performance

Source: Field data (2017)

Coefficient results depict that Supplier Relationship Management constructs of; information sharing, supplier development, supplier involvement and supplier appraisal are significant measure of firm operational performance hence their use leads to an increase in firm operational performance by 1.168, .784, .637 and .435 units respectively.

The researcher multiple regression model was in the form of:

$P = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$ . Where: P = Operational Performance;  $\alpha$  = the P Intercept when X is zero;  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$ , are regression coefficients of the following variables respectively;  $X_1$  = Supplier Appraisal;  $X_2$  = Supplier Development;  $X_3$  = Supplier Involvement;  $X_4$  = Information Sharing and e = Error term.

From the results in Table 4.9, the overall multiple regression model can now be written as;

P (Operational Performance) =  $-.138 + .435X_1 + .784 X_2 + .637 X_3 + 1.168 X_4$ . Where .435, .784, .637 and 1.168 represents  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$  respectively. Since  $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq 0$ , the

study rejects the four research null hypotheses and concludes that there is a significant relationship between Supplier Relationship Management and operational performance of sugar manufacturing firms in Kakamega County. The study results are in agreement with past research findings which found out that Supplier Relationship Management results in improved firm performance (Arsan, 2011; Wenli *et al.*, 2012; Khuram, Ilkka, Elina & Shpend, 2016; Weitz, 1992; Kilpatrick and Ron, 2000; Choi, 2004; Baily *et al.*, 2008).

## **CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

The chapter presents summary of the empirical findings, conclusion and recommendations on the effect of Supplier Relationship Management and Operational Performance of Sugar Manufacturing Firms in Kakamega County. Suggestions for further research have also been captured.

### **5.2 Summary of the Findings**

From the data collected it is evident that supplier appraisal, supplier development, supplier involvement and information sharing have a positive and significant correlation to operational performance. Supplier appraisal is a pre-requisite in Supplier Relationship Management since it is the evaluation process of finding whether a supplier meets organization supplier requirements. Firms in the sugar sector in Kakamega County attribute supplier development as a useful means towards achieving goals and objectives in their supply chain. Through supplier involvement, firms are able to jointly work with suppliers in areas of product design and development thereby reducing costs related to the supply chain function. The sugar manufacturing firms in Kakamega County are embracing information sharing with their key suppliers as it helps in provision of reliable supply data between the organization and suppliers for sustainable relationship and operational performance.

### **5.3 Conclusion**

The study concludes that the sugar manufacturing firms in Kakamega County have been embracing Supplier Relationship Management in terms of supplier appraisal, supplier development, supplier involvement and information sharing. Supplier Relationship Management has assisted the sugar manufacturing firms to enhance the operational performance of their organizations. This is supported by results from a regression analysis conducted that indicated there is a strong positive and significant relationship between Supplier Relationship Management and operational performance.

## **5.4 Recommendations**

The study has confirmed that Supplier Relationship Management is very significant in enhancing the operational performance of sugar manufacturing firms in Kakamega County. All sugar manufacturing firms and other organizations are advised to embrace this concept so that they can be able to reap the benefits of developing Supplier Relationship Management. By maintaining good relationships with their suppliers, sugar manufacturing firms will end up performing well; they will also help their key suppliers to achieve their set goals. The sugar manufacturing firms are also advised to adopt the practices that are currently adopted at a very small extent because they can significantly improve their operational performance from the current position.

## **5.5 Limitations of the Study**

According to Mugenda and Mugenda (2003), a limitation is an aspect of research that may influence the results but over which the researcher has no control. Limitations of the study included the following: given the busy schedule of the managers of the sampled sugar firms in Kakamega County, it was almost impossible to administer questionnaires to them. The researcher took this issue seriously by booking appointments for meetings and did not tire up by coming over and again until an adequate response rate was obtained. Some respondents were not willing to cooperate in giving required information needed by the researcher due to fear of victimization. The respondents provided the required information after being assured of information confidentiality as the data being collected was for research purpose only.

## **5.6 Suggestions for Further Research**

Arising from the summary of the key findings, conclusion and recommendations; the study proposes the following: a similar study should be conducted in sugar companies in other counties in Kenya to find out if there is or there is no disconnect between the study findings. A comparison study is also inevitable between the private and public owned sugar companies on Supplier Relationship Management and operational performance. Finally, a similar study is also necessary in other sectors like service industry to link it with findings in the manufacturing industry that this study has focused on.

## REFERENCES

- Ambe, I. M., & Badenhorst-Weiss, J. A. (2012a). Procurement Challenges in the South African Public Sector. *Journal of Transport and Supply Chain Management*. 6 (1): 242-261.
- Anderson, E. & Weitz, B. (1992). "The use of pledges to build and sustain commitment in distribution channels," *Journal of Marketing Research*, 29 (1), 18-3.
- Arsan, (2011). *Performance Measurement and Metrics: An Analysis of Supplier Evaluation* retrieved from [www.scm.ncsm.edu/scm-articles](http://www.scm.ncsm.edu/scm-articles) on 5<sup>th</sup> September, 2013.
- Baily, Farmer, Jessop and Jones, (2008). *Purchasing Principles and Management*, 9<sup>th</sup> Edition.
- Babbie, E. (2004). *The Practice of Social Research*. 8<sup>th</sup> edition Belmont California, Wadsworth publishing company, USA.
- Bryman, A., and Bell, E. (2011). *Business Research Methods*. 3<sup>rd</sup> Ed, Oxford: Oxford University Press.
- Cannon, J. & Homburg, C. (2001). Buyer-Supplier Relationships and Customer Firm Costs, *Journal of Marketing*, Vol. 65 (1).
- Christopher, M. (2009). Towards a "Theoretical tool box for strategic sourcing," *Supply Chain Management: An International Journal*, Vol. 14 (1): pp. 3-10.
- Cooper, D. R., & Schindler, P. S. (2003). *Business Research Methods*. (8<sup>th</sup> Ed.). Boston: McGraw- Hill Irwin.
- Cropanzano, R., & Mitchell, M. S. (2005). Social Exchange Theory: An interdisciplinary review. *Journal of management*, 31(6), 874-900.

- Donoghue, J. (2011). "Creating and Maintaining a Successful Supplier Relationship," San Diego, CA. <http://leardon.com/successful-supplier-management>, download 25.01.2012.
- Elam, E., M. (1979). *Applied Business Statistics*, 2<sup>nd</sup> Ed, Book Press, USA.
- Feng, T., and Wang, D. (2013). "Supply Chain Involvement for better product development performance," *Industrial Management & Data Systems*, Vol. 113 Issue: 2, pp. 190 - 206. <https://doi.org/10.1108/02635571311303532>
- Fink, R. C., Edelman, L. F., Hatten, K. J., & James, W. L. (2006). Transaction Cost Economics, Resource Dependence Theory and Customer-Supplier Relationships. *Industrial and Corporate Change*, 15 (3), 497-529.
- Harland, C., Knight, L., Lamming, R., & Walker, H. (2005). Outsourcing: assessing the risks and benefits for organizations, sectors and nations, *International Journal of Operations & Production Management*, 25 (9), 831 – 850.
- Herrmann, J. W., & Hodgson, B. (2001). SRM: leveraging the supply base for competitive advantage. *Proceedings of the SMTA International Conference, Chicago, IL, 1 October 2001, supply works inc.*
- Hoe, S., L. (2008). Issues and procedures in adopting structural equation modeling technique, *Journal of applied quantitative methods*, Vol. 3(1).
- Homans, G., C. (1958). Social behavior as exchange. *American journal of sociology*, 597- 606.
- Inayatullah, Narain, R., and Singh, A. (2012). Role of buyer-supplier relationship and trust on organizational performance. *Delhi Business Review Vol. 13, No 2.*

- Johnston, D. A., McCutcheon, D. M., Stuart, F. I., and Kerwood, H. (2004). "Effects of supplier trust on performance of cooperative supplier relationships," *Journal of Operations Management*, Vol. 22, pp. 23-38.
- Kamau, F. (2013). "*Buyer-supplier relationships and organizational performance among large manufacturing firms in Nairobi, Kenya.*" Unpublished MBA Project, University of Nairobi.
- Kearney, D. (2013). *Supplier performance management – Driving successful strategies and relationships*. [www.edgererve.com/procureedge](http://www.edgererve.com/procureedge)
- Kegode, P. (2005). *A Research Study on Economic Governance and Reforms: Challenges & evaluating training and performance in sugar firms in western province, Kenya*. Kakamega: Masinde Muliro University.
- Kenya Sugar Board, (2013). *Kenya Sugar Cane Board Year Book of Statistics*.
- Khuram, S., Ilkka, S., Elina, S., & Shpend, I. (2016). Benchmarking Supplier Development: An Empirical Case Study of Validating A Framework to Improve Buyer-Supplier Relationship. *Management and Production Engineering Review*, 7 (1), 56–70.
- Kilpatrick, J. & Ron, F. (2000). "Logistics in Canada Survey: Tracking Year 2000 Supply Issues and Trends." *Journal of Materials Management and Distribution*. 45 (1) 16-20.
- Kosgei, R. C., & Gitau, R. (2016). Effect of Supplier Relationship Management on organizational performance: A case study of Kenya Airways Limited. *International Academic Journal of Procurement and Supply Chain Management*, 2 (2), 134-148.
- Kothari, R. (2004). *Research Methodology; Methods and Techniques*: Prakashan; Mumbai.

- Kothari, C., R. and Garg, G. (2014). *Research Methodology: Methods and Techniques*; New Delhi; New Age International.
- Liker, J. K., and Choi, T. Y. (2004). Building deep suppliers relationships. *Harvard Business Review*, 82 (12), 104-114.
- Lysons, K. and Farrington, B. (2006). *Purchasing and Supply Chain Management*, Prentice Hall, UK. 7<sup>th</sup> Edition.
- MacPherson, A., Elliot, M., Harris, I., and Homan, G. (2004). 'E-learning: Reflection and Evaluation of Corporate Programmes.' *Human Resource Development International Journal*, 7 (3): 295-313.
- Maraka, Kibet and Iravo, (2015). Supplier Relationship Management on organization performance in selected sugar companies in Western Kenya. *International Journal of Management Research*. Volume 4 Issue 1.
- McCutcheon, D., and Stuart, F., I. (2000). "Issues in the choice of supplier alliance partners," *Journal of Operations Management*, Vol. 18, No. 3, pp. 279-301.
- Melander, L., Rosell, D., and Lakemond, N. (2014). In pursuit of control: involving suppliers of critical technologies in new product development. *Supply Chain Management: An International Journal*, Vol. 19 (6), pp. 722 – 732.
- minigrp.com
- Mugenda, O. M., and Mugenda, A. G. (2003). *Research Methods: Qualitative and Quantitative Approaches*. Nairobi, Act Press.
- Ooko. G. O., Manyasi, J., and Ondiek, B. A. (2016). Talent Retention Strategy and Employees' Productivity in Private Sugar Companies in Kakamega County, Kenya. *International Journal of Multidisciplinary and Current Research*, Vol. 4 (July-August, 2016).

- Park, J., Shin, K., Chang, T. W., & Park, J. (2010). An integrative framework for supplier relationship management. *Industrial Management & Data Systems, Vol. 110 (4)*, 495-515.
- Porter, M., E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. The Free Press, New York.
- Rajaniemi, J. (2012). *Defining and Measuring Lead Time in a Telecommunication Production*. Master of Science thesis. Department of Computer Sciences and Engineering, University of Oulu. 63 p.
- Rapando, M., J. (2011). *Research Study on Assessment of Financial Return Method in Evaluating Training and Performance in Sugar Firms in Western Province, Kenya*. Kakamega: Masinde Muliro University.
- Saleemi, N., A. (2007). *Purchasing and Supplies Management*, Saleemi Publications.
- Sanders, N. (2005). IT alignment in supply chain relationships: A study of supplier benefits. *Journal of Supply Chain Management, 41(2)*, 4-13.
- Tangus, C., Oyugi L. A., Rambo C. M., & Rono, B. K. (2015). Effects of Supplier Relationship Management Practices on Performance of Manufacturing Firms in Kisumu County, Kenya. *International Journal of Economics, Commerce and Management. Vol. 3 (11)*. Pp. 499 - 512. ISSN: 23480386, United Kingdom.
- Wachira, R., (2013). *Supplier Relationship Management and Supply Chain Performance in Alcoholic Beverage Industry in Kenya*, University of Nairobi.
- Wenli, L, Humphreys, P. K, Yeung, C. L., & Cheng, T. C. E. (2012). The impact of supplier development on buyer competitive advantage: A path analytic model. *Int. J. Production Economics. 135*, 353–366.

[www.businesslist.co.ke](http://www.businesslist.co.ke)

[www.mumias-sugar.com](http://www.mumias-sugar.com)

## APPENDICES

### Appendix I: Questionnaire

This questionnaire has been designed for the sole purpose of collecting data concerning *“Supplier Relationship Management and Operational Performance of Sugar Manufacturing Firms in Kakamega County, Kenya.”* Any information that you give will be treated with complete confidentiality and will be for academic purposes only.

#### **PART A: SUPPLIER RELATIONSHIP MANAGEMENT (Tick where appropriate i.e. only once per row)**

1. Listed below are the probable Supplier Relationship Management techniques that your company practices. To what extent has your company put in place these techniques? Please rank them using the key guideline below; [1] – Very great extent, [2] – Great extent, [3] – Moderate extent, [4] – Small extent and [5] – Very small extent.

<b>SUPPLIER APPRAISAL</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	There are frequent visits in supplier facilities and field research before supplier pre-qualification					
2.	The company benchmarks suppliers against best practices					
3.	The sugar company uses third party appraisal methods through agencies to appraise their suppliers					
4.	The company relies on desk appraisal method using suppliers published and unpublished information to evaluate their past performance					
5.	Supplier evaluation is based on financial, production and human resource capabilities					
<b>SUPPLIER DEVELOPMENT</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	The sugar company develops their supplier technological capacity					
2.	The organization financially empowers their suppliers					
3.	There is collaboration with suppliers in the company for long term relationship					
4.	The company helps suppliers in developing their production capacities					
5.	The company provides legal advice services to the suppliers					

<b>SUPPLIER INVOLVEMENT</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Suppliers have helped the institution in preparation of specifications					
2.	There is joint planning and meetings between the company and suppliers					
3.	The company employees group approach as a way to Supplier Relationship Management					
4.	The company gives careful consideration to the interdependence of its supply chain					
5.	The company involves suppliers in supply chain decisions					
<b>INFORMATION SHARING</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	There is mutual information sharing between the company and suppliers on supply issues					
2.	There are immediate computer to computer joins with key suppliers in the company empowering the parties to get timely data					
3.	The company has regular face-to-face and personal communication with its key product and service providers					
4.	The company maintains supplier data bases where it accesses supplier information					
5.	The company allows suppliers to access its critical information like sales forecast, promotional strategies and production runs					

**PART B: SUPPLIER RELATIONSHIP MANAGEMENT AND OPERATIONAL PERFORMANCE (Tick where appropriate i.e. only once per row)**

1. To what extent do you agree with the following statements relating to the effects of Supplier Relationship Management on operational performance? Please rank them using the key guideline below; [1] – Very great extent, [2] – Great extent, [3] – Moderate extent, [4] – Small extent and [5] – Very small extent.

		1	2	3	4	5
1.	The suppliers deliver quality products and services which enhance the company's operational performance					
2.	There is shorter lead time towards service delivery as a result of good supplier-buyer relationship					
3.	Company efficiency level has gone up as a result of information sharing between it and the suppliers					
4.	There has been an overall reduction in costs incurred as a result of involving company suppliers in critical decision making					
5.	There is real time delivery of goods and services brought by developed supplier capability by the company					
6.	In general, Supplier Relationship Management leads to better operational performance					

*Thank you for your cooperation*

## **Appendix II: Interview Schedule for Top Management Staff**

1. What techniques of Supplier Relationship Management do you employ in your company?

**Field notes**

.....

2. How do you appraise suppliers in your company?

**Field notes**

.....

3. Does your company develop its supplier's capabilities? If yes, how?

**Field notes**

.....

4. Explain briefly how your company involves their key suppliers and share information from supplier database and company database.

**Field notes**

.....

5. Do you think Supplier Relationship Management techniques like supplier appraisal, supplier development, supplier involvement and information sharing has an effect on operational performance? If yes, how?

**Field notes**

.....

.....

***Thank you for your cooperation***