

**PROCUREMENT OUTSOURCING AND SUPPLY CHAIN  
PERFORMANCE OF MANUFACTURING FIRMS IN  
NAIROBI, KENYA**

**BEATRICE MUKUHI KINYANJUI**

**D61/64979/2013**

**A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS OF THE AWARD OF THE  
DEGREE OF MASTER OF BUSINESS ADMINISTRATION, SCHOOL OF  
BUSINESS, UNIVERSITY OF NAIROBI**

**2014**

## DECLARATION

This research project is my original work and has not been presented for a degree in any other university.

Signature.....  
**BEATRICE MUKUHI KINYANJUI**  
**D61/64979/2013**

Date.....

This research project has been submitted for examinations with my approval as the university supervisor.

Signature.....  
**MR. ERNEST AKELO**  
**SCHOOL OF BUSINESS**  
**UNIVERSITY OF NAIROBI**

Date.....

## **DEDICATION**

I wish to dedicate this project to the Almighty God and my parents who have taught me the value of education. I also dedicate it to my colleagues who stood by me during the research period. Thank you all and God bless you.

## **ACKNOWLEDGEMENT**

I wish to acknowledge my sincere appreciation to the following people without whom this research work would not have been successful. It may not be possible to mention all by name but the following were singled out for their exceptional contribution.

My profound gratitude goes to my supervisor Mr Akello for his commitment and personal interest in the progress of this study. His wise counsel, encouragement, patience and constructive and innumerable suggestions that made this work come to completion. Finally and most importantly, I wish to thank God for bringing me this far.

## TABLE OF CONTENTS

DEDICATION .....	iii
ACKNOWLEDGEMENT .....	iv
ABSTRACT .....	viii
ACRONYMS/ABBREVIATIONS .....	ix
LIST OF TABLES .....	x
LIST OF FIGURES .....	x
CHAPTER ONE.....	1
INTRODUCTION.....	1
1.1 Background of the Study .....	1
1.1.1 Procurement Outsourcing .....	2
1.1.2 Supply Chain Performance .....	4
1.1.3 Manufacturing Firms in Nairobi, Kenya .....	5
1.3 Objectives of the Study .....	8
1.4 Value of the Study .....	9
CHAPTER TWO.....	10
LITERATURE REVIEW .....	10
2.1 Introduction .....	10
2.2 Procurement Outsourcing .....	10
2.3 Supply Chain Performance .....	12
2.4 Benefits of Procurement Outsourcing .....	14
2.5 Challenges of Procurement Outsourcing .....	16
2.6 Key Metrics for Supply Chain Performance .....	18
2.6.1 Methods for Supply Chain Performance Measurements .....	19
2.6.2 The Balance Scorecard in Supply Chains .....	20
2.7 Conceptual Framework.....	24
CHAPTER THREE.....	25
RESEARCH METHODOLOGY .....	25
3.1 Introduction .....	25

3.2 Research Design .....	25
3.3 Population of the Study .....	25
3.4 Sample Design.....	25
3.5 Data Collection.....	26
3.6 Data Analysis.....	26
CHAPTER FOUR .....	29
DATA ANALYSIS, RESULTS AND DISCUSSION .....	29
4.1 Introduction .....	29
4.2 Data Presentation.....	30
4.2.1 Data Validity .....	30
4.2.2 Data Reliability.....	30
4.3 General Demographics .....	31
4.3.1 Job Position Held.....	31
4.3.2 Years of Service .....	31
4.4 Procurement Outsourcing Practices.....	32
4.4.1 Distribution and Logistics Services.....	32
4.4.2 Warehousing Services .....	33
4.4.3 Information Systems Management.....	34
4.4.4 Consultancy Services.....	35
4.4.5 Purchasing Functions.....	37
4.4.6 Supplier Management.....	38
4.4.7 Inventory Management.....	39
4.5 Supply Chain Performance .....	40
4.6 Procurement Outsourcing and Supply Chain Performance .....	41
4.6.1 Model Summary .....	42
4.6.2 Coefficients of Determination .....	43
4.6.3 Analysis of Variance .....	44
4.7 Challenges of Procurement Outsourcing.....	45
CHAPTER FIVE.....	47
SUMMARY, CONCLUSION AND RECOMMENDATIONS.....	47
5.1 Introduction .....	47
5.2 Summary of Findings .....	47
5.3 Conclusion.....	48

5.4 Recommendations for Policy Change .....	48
5.5 Limitations of the Study .....	49
5.6 Areas for Further Research.....	50
REFERENCES .....	51
APPENDIX I: RESEARCH QUESTIONNAIRE .....	57

## **ABSTRACT**

The study was conducted to establish the effect of procurement outsourcing on supply chain performance among manufacturing firms in Kenya. The study had three specific objectives to achieve: to determine the extent to which procurement outsourcing is done in manufacturing firms in Nairobi, Kenya, to determine the effect of procurement outsourcing on supply chain performance of manufacturing firms in Nairobi, Kenya and to determine the challenges in procurement outsourcing among manufacturing firms in Nairobi, Kenya.

The collected data was edited and cleaned for completeness and consistency in preparation for coding. Once coded, the data was keyed into the Statistical Package for Social Sciences (SPSS) for analysis. Descriptive statistics such as means and standard deviations were used to analyze the data. Regression analysis was used to test the relationship between the variables under study in relation to the objectives of the study. The study concluded that the manufacturing firms outsource procurement practices to a great extent and this affects supply chain performance of manufacturing firms in Kenya positively by leading to improved supply chain performance in ways such as increased productivity, minimized costs, maximized profits, increased operational efficiency and increased customer satisfaction. Challenges were faced to a moderate extent.

The managements of manufacturing firms should take legal precautions against the third parties offering the services or products being outsourced to prevent information leaks or a breach of company privacy and that the management of the manufacturing firms should carry out a benchmarking activity against the best players in the market as a way of improving their procurement outsourcing practices. This would enable them to achieve undisputed performance of their supply chains.

## **ACRONYMS/ABBREVIATIONS**

ABC	Activity Based Costing
BSC	Balanced Scorecard
GDP	Gross Domestic Product
IPO	International Purchasing Office
KAM	Kenya Association of Manufacturers
ROK	Republic of Kenya
SCM	Supply Chain Management
SCOR	Supply Chain Operations Reference
SPSS	Statistical Packages for Social Sciences
WTO	World Trade Organization

## LIST OF TABLES

Table 4.1: Response Rate.....	28
Table 4.2.2: Cronbach’s Alpha.....	29
Table 4.3.1: Position Held.....	30
Table 4.4.1: Distribution and Logistics Services.....	31
Table 4.4.2: Warehousing Services .....	33
Table 4.4.3: Information Systems Management.....	34
Table 4.4.4: Consultancy Services.....	35
Table 4.4.5: Purchasing Functions.....	36
Table 4.4.6: Supplier Management.....	37
Table 4.4.7: Inventory Management.....	38
Table 4.5: Supply Chain Performance.....	39
Table 4.6.1: Model Summary.....	40
Table 4.6.2 Coefficients of Determination.....	41
Table 4.6.3 Analysis of Variance.....	43
Table 4.6: Challenges of Procurement Outsourcing.....	44

## LIST OF FIGURES

Figure 2.7: Conceptual Framework.....	23
Figure 4.3.2: Years of Service.....	30

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The supply chain has become a very prominent concern for all organizations as they strive for better quality and higher customer satisfaction (Chopra & Meindle, 2001). Due to a realization by most firms that maximizing performance of one department or functions may lead to less than optimal performance for the whole firm, it has become critical for firms to manage the entire network of supply to optimize overall performance and become competitive in the long run. This hence renders the use of systems approach/thinking (Mentzer, DeWitt, Keebler, Min, Nix, Smith & Zacharia, 2001) as well as performance measurement.

Over time, the procurement function has become an integral part of every firm's competitive success (Reck & Long, 1998). Performance measurement is a central element in procurement management which cannot be considered in isolation. Planning and control go hand in hand. If the procurement function lacks a clear vision, when procurement outsourcing plans are ill developed and management reporting is absent, systematic performance measurement and evaluation will be difficult if not impossible.

Monczka, Trent and Hanfield, (2010) argues that there is a need to recognise the difference between purchasing (they explicit interchange the terms "purchasing" and "procurement") and supply management. Procurement is a functional group as well as a functional activity and performs many activities to ensure value to the organisation such as supplier identification and selection, buying, negotiation and contracting, supply market research, supplier measurement and improvement, and purchasing

systems development, this function can also be outsourced instead of the organization having a procurement department of its own. Supply management on the other hand oversees and optimizes the process of acquiring inputs from suppliers (purchase), converting those inputs into a finished product (production), and delivering those products or outputs to customers(fulfillment).

According to the Economic Recovery Strategy for Employment and Wealth Creation Report, the manufacturing sector in Kenya is a major source of growth, still with high potential for growth and investment. The role of the manufacturing sector in Vision 2030 is to create employment and wealth. Some key Kenyan manufacturing subsectors that have increased demand in the recent past include galvanized iron sheets, cement, cigarettes, beer and wheat flour. All of these have increased production between 2003 and 2005; particularly cement which is a good indicator of economic activity. On the consumer goods side, goods manufactured locally include stationery and grooming products (KAM 2014).

Since independence, the Kenyan economy has remained predominantly agriculture, with industrialization remaining an integral part of the country's development strategies. The industrial sector's share of monetary GDP has remained about 15-16% while that of manufacturing sector has remained at a little more than 10%. Over the last two decades manufacturing activities account for the greatest share of industrial production output and form the core of industry (ROK, 2012).

### **1.1.1 Procurement Outsourcing**

Hanson and Olson (2005) observes procurement outsourcing as the transfer of all or part of a range of sourcing-to-settlement processes including sourcing, tactical buying, requisitioning, accounts payable and supplier management to a third party whereby it

does not mean that the company loses control of the procurement process, but merely that it utilizes the services of a third party service provider/procurement outsourcing.

According to a research by Aberdeen Group (2007), procurement outsourcing is the action of a company outsourcing their procurement functions, with the acquisition of goods and services, through the third party. This does not mean that the company loses control, but utilizes third party services. The outsourced procurement can mean cost reduction, improved efficiency, improved compliance, and enhanced performance. Procurement outsourcing can involve some or all of the company's staff, technology, systems and vendor management or everything can be directed by the procurement outsourcing firm to the company (Sigalia, 2010).

One of the greatest benefits of procurement outsourcing is that it can provide the much-needed impetus to overcome the greatest hurdle to procurement transformation. Unlike other areas of business process outsourcing, procurement outsourcing is not an 'all-or-nothing' proposition (Bill & Tim, 2012). In addition most companies begin by tapping outsourcers expertise on a particular group of spend categories to manage execution of discrete sub-processes such as sourcing execution; to provide localized support to establish supply ;or to set up an international purchasing office(IPO).

Organizations undergoing rapid change due to changing internal and external environments are likely to benefit if they embrace procurement outsourcing as an operational strategy to reduce operation costs. In procurement outsourcing there are several practices that are observed between the manufacturing firms and third party service providers inclusive of distribution and logistics services, warehousing services, information systems management, consultancy services, purchasing functions, supplier management and inventory management (Leenders and Fearon, 1997).

### **1.1.2 Supply Chain Performance**

Supply chain performance is an overall performance measurement that depends on the performance of the supply chain stages. The performance of supply chain can be defined by supply chain profitability, which has only one source of revenue: the customer (Chopra & Meindl, 2001). According to Van der Vorst (2000) supply chain performance is the degree to which a supply chain fulfils end user requirements concerning the relevant performance indicators at any point in time and at what total supply chain cost.

Measurement of the entire supply chain performance is important because measurement affects decision making through the evaluation of past behaviour and through the opportunity of benchmarking. Insufficient scores on performance measures might lead to continuity problems in the short or long term, because decisions makers need information on the operations to guide their decisions. It is imperative to have a set of performance indicators at the supply chain level (Ploos, 1996). According to Lambert and Pohlen (2001) a well-defined supply chain measurement system increases the chance for success by aligning processes across multiple firms, targeting the most profitable markets, and obtaining a competitive advantage through differentiated services and lower costs.

Chan (2003) concludes performance measurement as the feedback or information on activities with respect to meeting customer expectations and strategic objectives. It reflects the need for improvement in areas with unsatisfactory performance. Thus efficiency and quality can be improved.

Performance measurement is vital in strategy formulation and communication and in forming diagnostic control mechanisms by measuring actual results (Wouters, 2009). Essentiality of performance measurement in supply chain is vital, and Gunasekaran and Kobu (2007) mention the following as the purposes of a performance measurement system: Identifying success, identifying if customer needs are met, better understanding of processes and identifying bottlenecks, waste, problems and improvement opportunities. Moreover, performance measurement is crucial for supply chain management.

### **1.1.3 Manufacturing Firms in Nairobi, Kenya**

Manufacturing firms refers to any business that transforms raw materials into finished or semi-finished goods using machines, tools and labour. They include production of food, chemicals, textiles, machines and equipment (Briens & Williams, 2004). Manufacturing is to make or process (a raw material) into a finished product, especially by means of a large-scale industrial operation. According to Awino (2011) manufacturing is an important sector in Kenya and it makes a substantial contribution to the country's economic development.

Manufacturing firms fall under the umbrella of Kenya association of manufacturers (KAM,2002).Kenya association of manufacturers posits that removal of price controls, foreign exchange controls and introduction of investment incentives have, however, not resulted in major changes in the overall economy, in particular, they have not improved the manufacturing performance. Therefore, to build a self-sustaining industrial sector, it is necessary to establish strategic linkages within the domestic economy. The growth in manufacturing sector has mainly been attributed to rise in output of the agro-processing industries. These include sugar, milk, grain milling, fish, tea, oils and fats processing sub-sectors. Other key sub-sectors of manufacturing that perform well are: manufacture

of cigarettes, cement production, batteries (both motor vehicles and dry cells), motor vehicle assembly and production of galvanized sheets.

Manufacturing firms in Kenya are categorized under large-sized (with assets above Kshs 100 million), medium-sized (with assets between Kshs 40 million) and small-sized (with asset below Kshs 40 million), (KAM, 2011). Those firms whose performance in terms of the machinery requirements, labour force required both capital intensive and labour intensive are high as well as the deployment of resources necessary to make the end product. Large capacity in the large scale manufacturing firms is a prerequisite in its functionality and it's no wonder that most manufacturing firms are located in the outskirts of Nairobi where there is more room and space for expansion.

Benchmark Index (2010) observes that manufacturing firms today are reducing the number of suppliers they buy from. Negotiating better unit prices by spending more with fewer vendors while at the same time lowering the ongoing administrative costs in their purchasing and accounts payable departments caused by supplier proliferation. Capacity in manufacturing firms could also be used to refer to the amount of reliance on external sources for the manufacturing of components and value-adding activities input, available relative to outputs requirements at a particular time (Lei & Hitt, 1995).

Manufacturing firms tend to be more flexible in their activities due to the ever changing consumer needs and preferences. These firms are able to adapt to changes in the environment and the economical changes like inflation in the business world it operates. In Kenya, manufacturing firms have in a while been facing several challenges which have become tough to curb especially counterfeits and contra-band goods that have unfairly reduced the market share for locally manufactured products (Domberger,

1998). Entry of substandard and counterfeit products with fairly cheaper prices has unfairly reduced the market share for locally manufactured food products. Counterfeit trade has also discouraged innovation efforts, reduced the revenue base for food manufacturers/ (ROK, 2012).

## **1.2 Statement of the Problem**

A number of studies have been done on outsourcing in general. Jacobs (2009) in his study found out that the reasons why organizations outsource vary greatly, Pearce and Robinson (1997) identified key strategic reasons for outsourcing which includes improvement of business focus, access of world-class capabilities, achievement of accelerated re-engineering benefits, and finally to re-direct resources from non-core activities to core activities.

A study by Pagnocelli (1994), found out that outsourcing leads to improved efficiency, improved service, helps an organization to focus on its core business functions, reduces operational costs and leads to access of advanced expertise and management experience. There is cost reduction due to usage of external rather than internal resources to provide the same level of service at a lower price (Weaver et al., 2000). Beulen, Dain, Hudson, Reitsma, Symonds & Zee (2000) identifies five main drivers of outsourcing which include; quality, capacity, cost, finances and core business activities. They conclude that these are fairly similar to why an organization would choose to outsource procurement.

Wambui (2010) who researched on the analysis of logistics outsourcing at Kenya Armed forces found out that the concept of outsourcing in the Kenyan armed forces is so much limited due to the secretive nature of their work such that adoption of the strategy is on supply of non essential services such as stationery. Kangaru (2011) while researching on challenges of business outsourcing at the Kenya Power found out that

third party logistics providers are ahead of manufacturing companies that operate logistics departments on quality implementation and improvement issues in logistics services.

A study on procurement outsourcing practices used by large scale manufacturing firms in Nairobi, Kenya was conducted revealing various benefits and challenges arising from procurement outsourcing (Eric, Beatrice, Joan, Willy & Christine 2012). According to Randall (1993), organizations undergo rapid changes due to changing internal and external environments and are likely to benefit if they embrace procurement outsourcing as an operational strategy to reduce operation costs.

From the discussions above, it is clear that not much is known about procurement outsourcing. The study therefore seeks to answer the following questions: 1) To what extent is procurement outsourcing done in manufacturing firms in Nairobi, Kenya? 2) What is the effect of procurement outsourcing on supply chain performance? 3) What challenges do manufacturing firms face while practicing procurement outsourcing?

### **1.3 Objectives of the Study**

The objectives of the study are:

- i. To determine the extent to which procurement outsourcing is done in manufacturing firms in Nairobi, Kenya.
- ii. To determine the effect of procurement outsourcing on supply chain performance of manufacturing firms in Nairobi, Kenya.
- iii. To determine the challenges in procurement outsourcing among manufacturing firms in Nairobi, Kenya.

#### **1.4 Value of the Study**

The researchers and scholars will find the report useful for reference in the future studies on procurement outsourcing and supply chain performance. The findings of this research would be very useful to students in the procurement field as it would enable them to fully understand this area and use it as a basis for future research.

The study will also be of value to organizations since it will help them identify the benefits of implementing procurement outsourcing. It would also enable them to understand how their supply chains performance can be improved through outsourcing procurement.

Manufacturing firms in Nairobi, Kenya would particularly find this research useful as it will help them identify the relationship between procurement outsourcing and their supply chains. The manufacturing firms will appreciate the benefits that results from procurement outsourcing and those that have not embraced it will realize the value of embracing it so as to become more competitive.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter looks at the literature of various concepts and contexts in procurement outsourcing and supply chain performance. It looks at the benefits and challenges of procurement outsourcing as well as the metrics used to measure supply chain performance putting more emphasis on the Balance scorecard.

#### **2.2 Procurement Outsourcing**

Lawrence (2011) states that procurement outsourcing is the transfer of specified key procurement activities relating to sourcing and supplier management to a third party perhaps to reduce overall costs or maybe to tighten the company's focus on its core competencies. Procurement categorisation and vendor management of indirect materials and services (indirect procurement) are typically the most popular outsourced activity.

Dhawan (2011) argues that to date, procurement outsourcing has mostly been limited to the transactional purchase-to-day process rather than the more strategic aspects of procurement. However, according to Hackett Group (2011), major companies will likely expand the scope of procurement outsourcing in the coming years. According to Joel (2008), it is critical that firms develop strong relationships and partnerships with suppliers inclusive of third party service providers based on a strategic perspective, and then manage the relationships to create value for all participants in the supply chain. Successful partnerships with key suppliers can contribute to product innovations, cost commitment, and quality improvement, and have the potential to create long-term competitive advantage for the firm.

Lambert et al. (1999) argues that distribution and logistics can be outsourced in terms of import/export services, sea cargo shipping, transportation of hazardous materials, air freight services and transportation of finished goods. Outsourced warehousing services looks at the storage of its raw materials, processing and dispatching of orders in outsourced warehouses, storage of its finished goods, storage of its unfinished goods and packaging of finished goods in outsourced warehouses, (Lieb et al., 1996).

In information systems management the firm can outsource the maintenance of its, SCM system personnel, order processing systems, payment management system and its inventory control system. Procurement officers can outsource consultancy services on how to optimize productivity, reduce operational costs, increase supply chain visibility, increase the quality of goods and services and how to improve customer care (Minahan, 1995).

In addition several purchasing functions can be outsourced whereby the firm could outsource specification compliance services, negotiation services, and all paperwork and accounting services. Krause and Ellram (1997) discusses that supplier management services can be outsourced whereby the firm can outsource supplier evaluation and selection services, supplier communication services, supplier relationship management services, supplier development services and supplier motivation services. Inventory management practice can be outsourced in procurement inclusive of inventory auditing services, inventory tracking services, and inventory forecasting and demand management (Fawcett et al., 1993).

The factors that have led to the rise of procurement outsourcing include; the desire to increase profits through vendors purchasing products at a less expensive rate, the rise in confidence due to the visible benefits accruing from procurement outsourcing,

constraints by insufficient resources and outdated skill sets in the firms, revenues and profits arising from procurement outsourcing among others (Evans, 1996). Randall (1993) in his study found out that successful outsourcing requires identification of a strong need for procurement outsourcing.

According to him, organizations undergoing rapid changes due to changing internal and external environments are likely to benefit if they embrace procurement outsourcing as an operational strategy to reduce operation costs. In his study he is of the opinion that credibility of suppliers is critical for the success of the procurement outsourcing process which is determined by experience in required services, proven track record on implementation and operating similar contracts, financial strength and commitment to the contract.

### **2.3 Supply Chain Performance**

Supply chain performance is the degree to which a supply chain fulfils end user requirements concerning the relevant performance indicators at any point in time and at what total supply chain cost (Orst, 2000).

Measurement of performance of firms is based on both quantitative and qualitative performance indicators Awino (2011). They provide a tool for organizations to manage progress towards achieving predetermined goals, defining key indicators of organizational performance and Customer satisfaction. It is the process of assessing the progress made (actual) towards achieving the predetermined performance goals (baseline). Measurement is managed using output measures and outcome measures.

Procurement and supply chain performance has two broad measures which includes effectiveness which refers to the extent to which by choosing a certain course of action, management can meet a previously established goal or standard and efficiency which

refers to the relationship between planned and actual sacrifices made to realize a previously agreed upon goal, (Carter & Mosconi, 2005).

According to Handfield (2009) there are a number of reasons for measuring procurement and supply chain activity and performance; Support better decision making due to making performance and results visible thus creating a track record of purchasing performance over time, support better communication between departments, within purchasing, with suppliers and with executive management; provide performance feedback which supports the privation or correction of problems identified during the performance measurement process and motivate and direct behaviour towards the desired end results.

Van WHEEL (1984) states that there are hundreds of purchasing and supply chain measures. Most procurement and supply chain measures fall into the following categories; price performance, cost effectiveness, revenue, quality, responsiveness, supplier performance and internal customer satisfaction. Measurement of procurement performance and the entire supply chain is important for all organizations because if an activity cannot be measured, it cannot be effectively managed, nor can continuous and sustainable improvements be made. In addition measurements are critical for maintaining the competitive edge of companies in an increasingly crowded global market place, (Lysons & Brian 2012). Competing today requires purchasing and supply chain managers to lay an active role in helping achieve an organizations cost, quality, time, technology, innovation and sustainability goals or risk losing market share to competitors that are benefiting from world class supply chain management,(Hirsch & Barbalho, 2003).

## **2.4 Benefits of Procurement Outsourcing**

Various benefits have been realized by companies that have opted to absorb procurement outsourcing as discussed:

There is capability improvement whereby a firm gains the ability to achieve and sustain competitive advantage if it possesses resources that are valuable, rare, imperfectly imitable and non- substitutable. Not all resources are strategically relevant within an organization (Barney, 1991). Procurement service providers do deliver advanced expertise which improves the capability of the organization since it can use the expertise and outsourced management experience to run its activities (Bailey et al., 2002). The third party suppliers may hold the patent to the process or product in question assisting a firm lacking the necessary technology and expertise to manufacture an item, (Leenders & Flynn, 2002).

Cost reduction is achieved whereby savings from procurement outsourcing are realized due to the use of external resources rather than internal resources to provide for the firm the same level of procurement services at a much lower cost. They often provide a reduction in operational costs through process standardization and improvement, staff right-sizing, and realization of economies of scale (Carrington, 1994).The costs that are reduced are; staff costs, administrative costs, training costs, recruitment costs as well as operating costs (Weaver et al., 2000).

It may also be possible to reduce the need for fixed assets required for its production, such as plant and machinery. Procurement outsourcing may reduce operation costs and free up assets (Jacobs, 2009). There is service improvement through consistency in service provision (Marshalla et al., 2007), the company gains professional technical

capacities from its suppliers during the procurement process and by so doing realizes improved services for both the firm and the customers (Carrington, 1994).

There are various dimensions of service quality that are improved through outsourcing procurement; reliability, responsiveness, assurance, empathy, and tangibles. (Zeithaml, 1985). According to Hiles (1989) suppliers may also invest more in research and development hence producing superior quality products which eventually helps the firm to stay on top of product and process technology, especially in high-technology requirements (Monzka & Handfield, 2002).

There is focus on core business functions whereby through outsourcing procurement, firms have access to external technologies and increase operational flexibility and concentrate more on core business activities and innovative new projects (Harland et al., 2005). Procurement outsourcing is valuable since it frees management time so that they can concentrate on core business operations which would otherwise be affected by spending time on non-core business operations (Carrington, 1994). Benmaridja and Benmaridja (1996) suggested that outsourcing the non critical part of procurement is important since the firm may have more time to plan on how to sell their goods more efficiently.

Smith et al (1998) concludes that through outsourcing procurement, a firm obtains external capacity which assists in obtaining funding for capabilities improvement and growth, and reduces staff pressures since staff management problems are minimized. This is made possible since procurement service providers are able to leverage their resources across multiple clients and become more adaptable in staffing for peaks and valleys in business activity with a client company (Lysons & Farrington, 2006). In addition a firm gains from the ability to gain access to new technologies and innovation

and to a very great extent outsourcing procurement becomes critical in industries that use high tech where technologies change very frequently and fashion industries (Leenders & Flynn, 1995).

There is business risk reduction through outsourcing procurement since there is a careful supplier evaluation before committing to purchase mitigating against supply interruption which could result in increased costs. Reputational risk is well taken care of when a firm uses suppliers who have quality products, proper disposal methods, environmental friendly practices and ethical dealings since a company is known by the suppliers they choose (Cox, 2000). According to Hiles (1989), by signing a Service Level Agreements (SLA's), the provider of a service and its user quantifies the minimum quality of service. This reduces uncertainties that would otherwise result from quality issues as well as non-compliance to procurement requirements (Carrington, 1994). Outsourced procurement creates multiple sources allowing the firm to spread the risk of supply interruptions due to strikes, quality problem, political instability, or other supplier problems (Wisner & Tan, 2000).

## **2.5 Challenges of Procurement Outsourcing**

As much as firms are opting to outsource procurement, they tend to face challenges. It is observed that a firm can take up to two years before benefiting from any savings associated with outsourcing the services (Perkins, 2003). The challenges faced are as discussed;

Prober (1995) states that loss of control is a risk organizations evaluating any kind of procurement outsourcing need to successfully tackle before deciding on an outsourcing supplier. There could arise interferences with a firms data privacy creating fear making it difficult for the firms to trust their service providers (PSL, 1993). This has resulted

due to the fact that the service providers may be lacking professionalism, including ethical values and training, experience of suppliers and their products and their ability to apply lateral thinking to the firms purchasing problems (Robinson & Wind, 1967).

There is internal resistance among employees when companies announce they are planning to implement a procurement outsourcing arrangement. According to Lacity and Hirschheim (1995), procurement outsourcing becomes a challenge where the employee culture is too fragmented or hostile for the organization to work together.

Outsourcing procurement creates a negative impact on employees whose morale may drop when this function starts to threaten the loss of their jobs and creating a belief that they may be the next. These begin to affect productivity, loyalty and trust all of which will be needed for a healthy growing firm (Schildhouse, 2005).

Procurement outsourcing faces the challenge of managing continuity in the delivery of services. This is due to the fact that there are unrealistic expectations of outsourcing providers due to overpromising at the negotiation stage (Perkins, 2003). Organizations that become redundant in offering payments to the service provider face the risk of discontinuity in the service delivery (Lysons & Farrington, 2006).

A firm that has outsourced its procurement activities may face the risk of incompetent suppliers of the products as well as services required by the firm. The service providers may choose suppliers who do not have the capability or technology to produce the raw materials, sub assemblies and components interfering with the continuity of service delivery by the firm (Tan & Wisner, 2000). The firms may also face the challenge of adhering to Incoterms which are the uniform set rules meant to simplify international transactions of goods with respect to shipping costs, risks, and responsibilities of buyer, seller, and shipper (WTO, 2002).

Lysons and Farrington (2006) concludes that outsourcing procurement becomes a challenge due to the many suppliers that are involved needing coordination. There could be issues like complacency over time, lack of control of larger suppliers and lack of commitment to the client or industry which could render the exercise futile. Carrington (1994) agrees that communication with suppliers is a challenge since there is a big difficult to coordinate the various suppliers of the service and inputs since they want to provide the services according to their own capabilities and specifications.

Reilly and Tamkin (1996) observes that firms face a challenge of loss of competitive advantage since there is loss of skills and expertise of staff, insufficient internal investment and the passing of knowledge and expertise to the service provider through the supplier hence seizing the procurement outsourcing initiative.

Outsourcing critical components to suppliers may open up opportunities for competitors who may also be using the same suppliers to supply them with raw materials, subassemblies, components, parts as well as expertise making it easy to acquire information on the same about their competitors (Kearney, 2005).

## **2.6 Key Metrics for Supply Chain Performance**

According to Chan (2003), performance measurement describes the feedback or information on activities with respect to meeting customer expectations and strategic objectives. It reflects the need for improvement in areas with unsatisfactory performance. Thus efficiency and quality can be improved. Supply chain metrics may include measurements for procurement/purchasing, production, distribution and logistics, information systems, inventory, warehousing, material handling, packaging and customer service (Spacey 2012). The need of performance measurement systems at different levels of decision-making, either in the industry or service contexts, is undoubtedly not something new (Bititici, Cavalieri, & Cieminski, 2005).

Metrics are defined by Melnyk, Stewart and Dswink (2004) as a verifiable measure, stated in either quantitative or qualitative terms defined with respect to a specific point as well as are consistent with values delivered to customers in a meaningful way. Performance indicators are metrics expected to express quantitatively the effectiveness or efficiency or both, of a part of or a whole process, or system, against a given norm or target (Lohman, Fortuin & Wouters, 2004).

Performance indicators also have made a significant impact upon the performance measurement literature, with a plethora of evermore complex framework models being developed in many fields since the late eighties (Folan & Browne, 2005). According to Otley et al. (2009), three approaches for performance measurement and management have emerged from the literature: Kaplan and Norton's balanced scorecard, Simons' Lever of Control and Ferreira and Otley's Framework. However, the balanced scorecard approach can provide a suitable basis for performance measurement into the supply chain context (Brewer & Speh, 2000).

### **2.6.1 Methods for Supply Chain Performance Measurements**

There exists great ambiguity among decision makers and practitioners regarding the usage of performance metrics in supply chain performance evaluation. To address this problem, some researchers have used Balanced Scorecard (BSC) and Activity Based Costing (ABC) methods to evaluate supply chain performance (Liberatore & Miller, 1998). Other researchers have also proposed similar balanced frameworks, such as Performance Measurement Matrix, results-determinants framework, performance pyramid. Balanced scorecard, SCOR model and benchmarking are three methods that are used for performance measurements within the manufacturing industry. The supply chain council has developed the SCOR model. The aim of SCOR is to provide a

standard way to measure supply chain performance and to use common metrics to benchmark against other organisations according to Christopher (1998).

Benchmarking tends to involve taking a largely external perspective, often comparing performance with that of competitors or other best of breed practitioners or business processes. This kind of activity is frequently pursued as an exercise to generate ideas for or obtain commitment to short term improvement initiatives rather than to design a formalized performance measurement system, Camp (1989).

Benchmarking which consists of a systematic procedure for identifying the best practice and modifying actual knowledge to achieve superior performance. According to benchmarking is a process for comparison against best practise. It is important with common metrics that can be used when comparing companies. Benchmarking has five basic purposes described by Splendolini (1992). Benchmarking can be used both internally within the own company and externally. The internal benchmarking can be used to compare different departments, but also the check how one department change over time. External benchmarking can be used to compare the own company with competitors or with companies that have high performance. System thinking in performance measurements which the performance measurements are considering the whole supply chain, Beamon (1999).

### **2.6.2 The Balance Scorecard in Supply Chains**

Balanced scorecard methodology by Kaplan and Norton (1993, 1996), rooted to their 1993 work, still lies at the heart of today's performance management system. A balanced performance evaluation of SCM such as, balanced scorecard not only helps organizations in faster and wider progress monitoring of their operations but can also help them in improving their internal and external functions of business such as engineering and design applications, production, quality improvement, materials

management, quick response, gaining lost market shares, proper implementation of business strategies etc.

The balanced scorecard is a means to evaluate corporate performance from four different perspectives: the financial, the internal business process, the customer, and the learning and growth, (Magalhães, 2004). BSC can be used as the foundation for strategic management system and to align businesses to new strategies, to move away from cost reduction and towards growth opportunities based on more customized, value adding products and services (Kaplan & Norton, 1992). So BSC has been used to integrate value with strategy by integrating value metrics with respect to value drivers in supply chain. They stated that balanced scorecard (BSC) is a useful strategic model applied in business processes.

The BSC process starts from a company's vision and strategy which are translated into objectives, measures, targets, and initiatives for every perspective. According to Kaplan and Norton (1992) the BSC retains financial metrics as the ultimate outcome measures for company success, but supplements these with metrics from three additional perspectives – customer, internal process, and learning and growth – that we proposed as the drivers for creating long-term shareholder value. While the financial perspective of the Balanced Scorecard is held to be the most important level for private enterprises respectively private supply chains, the customer perspective takes precedence for the public sector (Ahn, 2005).

The financial perspective addresses the question of how shareholders view the firm and which financial goals are desired from the shareholder's perspective. It looks at: profitability, liquidity, revenues by product, revenue per employee, contribution margin, return over investment, unit cost, minimizing costs, profit maximization, inventory, overall earnings and operation costs. In the hierarchical BSC concept all perspectives are directed towards the financial perspective of which measures control for bottom-line improvements through strategy implementation and execution. Objectives and measures refer to profitability (e.g. operating income, return-on-capital-employed, economic value-added), sales growth, shareholder value or cash flow generation. Economic performance and viability as main objectives are directly linked to market success and customers (Stefan & Florian 2011). Possible initiatives include on the administrative level exploitation of saving potentials by inter alia effective deployment of personnel or considerate selection of suppliers and their involvement in the planning processes in an early stage, (Bodzdogan, 1998) or improvement of internal processes.

The customer perspective addresses the question of how the firm is viewed by its customers and how well the firm is serving its targeted customers in order to meet the financial objectives. This perspective helps to identify current and future market segments and customers. Customers are mainly concerned about time, quality, service, and cost of offerings; thus, it is important to understand how a supplier is performing against these criteria from their customers' point of view. The task is to evaluate what they really value, today and in the future, and translate this into value propositions that lead to customer satisfaction and retention (Kaplan & Norton 1996a). Beamon (1998) looks at customer perspective in terms of: customer satisfaction, customer loyalty, new customers, market share, brand value, profitability by customer, revenue per customer,

business partner's satisfaction, delivery time, responsiveness to clients, growth in market share and maximizing sales.

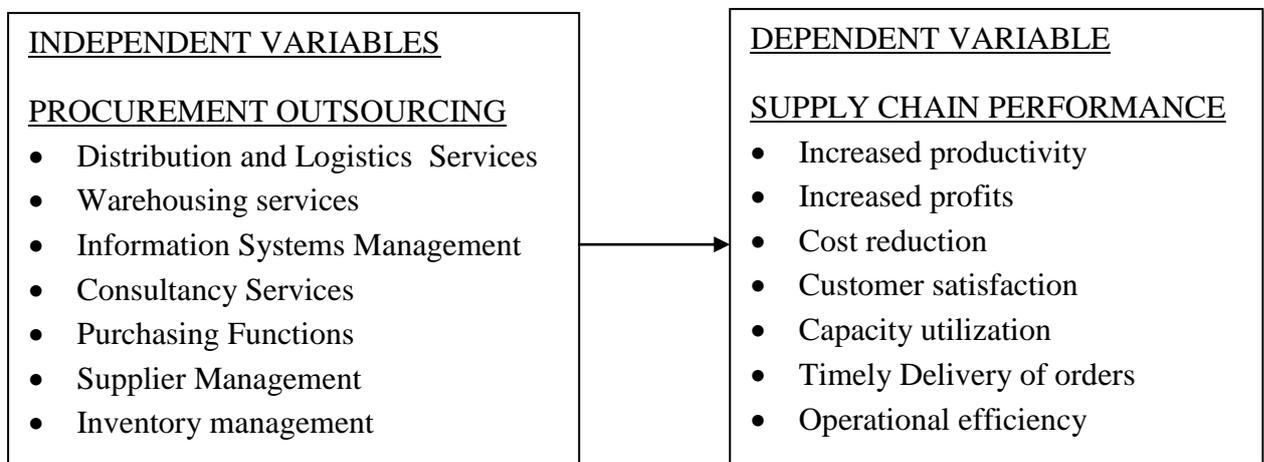
Internal business process perspective objectives address the question of which processes are most critical for satisfying customers and shareholders. These are the processes in which the firm must concentrate its efforts to excel inclusive of new products, new processes, after sales, suppliers, flexibility, response time to customers, delay in delivery, response of suppliers, storage time and information and integration of materials. Here, the focus is on the internal value-chain. It defines what the company must do to provide attractive customer value propositions and realize an adequate financial performance for shareholders. Critical innovation and operations processes are identified, referring to product design and development, manufacturing, marketing and post sale service. Executives need to identify core competencies and technologies which are needed to succeed in both short and long-term value creation (Kaplan & Norton 1996b).

Learning and growth metrics address the question of how the firm must learn, improve, and innovate in order to meet its objectives. Much of this perspective is employee centred. Global competition and changing business environments require companies to innovate, improve and learn continuously to offer compelling value propositions and better processes. The ability of organizational learning is based on employees, IT systems and organizational quality. The innovation and learning perspective identifies the infrastructure underlying the other three perspectives. This infrastructure is crucial to make a company become a learning organization (Kaplan & Norton 1996b).

## 2.7 Conceptual Framework

The conceptual framework consists of both the dependent and independent variables meant to propose the relationship between procurement outsourcing and supply chain performance concepts and to provide a context to assist in the study interpretations. The independent variables include distribution and logistics services, warehousing services, information systems management, consultancy services, purchasing functions and supplier management.

Figure 2.7: Conceptual Framework



**Source: Researcher (2014).**

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter outlines the methodology that was used in the research study. It gives the details of the research design, population, data collection methods and procedures as well as data analysis methods that were used in the study. This chapter gives the direction and procedures that were used to carry out the study effectively.

#### **3.2 Research Design**

After considering the various researches as described by research experts such as Cooper (2001), the researcher found descriptive design most appropriate for the study. This is because a descriptive design is concerned with determining the frequency with which an event occurs, or relationship between variables which is a major concentration in this study. With this design the researcher was able to dig deep into various variables identified.

#### **3.3 Population of the Study**

The population of the study in this research is manufacturing companies that are based in Nairobi, Kenya. According to the Kenya association of manufacturers (KAM), there are a total of 640 manufacturing companies operating in Nairobi. The 640 manufacturing companies represent the study population. Due to their high numbers, they were sampled according to various sectors under which they operate.

#### **3.4 Sample Design**

Stratified random sampling method was applied to come up with the sample size, since the population in different manufacturing firms is considered heterogeneous, implying that a simple random sample would be unrepresentative. This according to Cooper and Schindler (2006) ensures that each manufacturing subsector is represented. According

to Mugenda and Mugenda (2003) at least 10% of the target population was important for the study. The study therefore involved 64 manufacturing companies Nairobi.

### **3.5 Data Collection**

Primary data was used in the study whereby the respondents were the supply chain managers from the various manufacturing firms in Nairobi. The data was collected using self administered questionnaires. The questionnaires were accompanied with an introductory letter from the researcher explaining the purpose of the study. A “drop-and-pick-up later” method was used to administer the questionnaires. This method was considered appropriate in view of the fact that most of the companies are located in Nairobi.

The questionnaire was structured in three sections as follows: Section A contained questions on general information about the manufacturing firms under the study; Section B comprised questions on the extent to which procurement outsourcing has been done; Section C comprised questions on the supply chain performance and Section D contained questions on the challenges of procurement outsourcing that were used to answer the third objective.

### **3.6 Data Analysis**

After data collection, the questionnaires were inspected for completeness, edited for errors and omission before being coded and the data being captured. On instances where corrections were not plausible, the questionnaires were discarded. The researchers tabulated the collected data systematically and analyzed its findings on the study with the aid of Statistical Package for Social Sciences. Since the study is descriptive in nature, descriptive statistics was used to analyze the data. All data in section A of questionnaire was measured on nominal scale quantified using dummy variable as variables for purposes of attaining higher level of analysis.

Data was presented in form of tables, graphs and pie charts to give a representation of the research findings.

Descriptive analysis was used to establish the extent of use of procurement outsourcing by the manufacturing firms where as regression analysis was used to explain the relationship between procurement outsourcing and supply chain performance in the manufacturing firms in Nairobi, Kenya. In this section the researcher used a multiple regression model to derive if there was a relationship between the dependent variable and independent variables.

A multiple regression equation for predicting Y was expressed as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \varepsilon$$

Where:

Y –Supply Chain Performance of manufacturing companies (dependent variable)

X<sub>1</sub>- X<sub>7</sub> – the independent variables

X<sub>1</sub>- Distribution and Logistics Services

X<sub>2</sub>- Warehousing services

X<sub>3</sub>- Information Systems Management

X<sub>4</sub>- Consultancy Services

X<sub>5</sub>- Purchasing Functions

X<sub>6</sub>- Supplier Management

X<sub>7</sub>- Inventory management

$\beta_0$  - is the constant of the model

$\beta_1$ -  $\beta_7$  – are the regression coefficients

$\varepsilon$  – Stochastic error term

Measures of central tendency like frequency distribution, mean, standard deviation were used in utilizing data captured in section B. To establish challenges facing

procurement outsourcing data captured in section D of the questionnaire was analysed using mean and standard deviation. Content analysis was used to analyse qualitative information collected on the study. This was used to support the result of quantitative analysis in drawing conclusions and recommendations.

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND DISCUSSIONS

#### 4.1 Introduction

This chapter presents the analysis of the primary data collected from the administered questionnaires. The collected data was edited and cleaned for completeness and consistency in preparation for coding. Once coded, the data was keyed into the Statistical Package for Social Sciences (SPSS) for analysis. Descriptive statistics such as means and standard deviations were used to analyze the data. Regression analysis was used to test the relationship between the variables under study in relation to the objectives of the study. Analysis of variance (ANOVA) was also done to confirm the findings of regression analysis.

A total of 64 questionnaires were administered. The questionnaires contained questions that addressed the objectives of the study. The objectives of the study were: To determine the extent to which procurement outsourcing is done in manufacturing firms in Nairobi, Kenya, to determine the effect of procurement outsourcing on supply chain performance of manufacturing firms in Nairobi, Kenya and to determine the challenges in procurement outsourcing among manufacturing firms in Nairobi, Kenya.

**Table 4.1: Response Rate**

<b>Response rate</b>	<b>Frequency</b>	<b>Percentage</b>
Completed	40	62.5
Incomplete	24	37.5
Total	64	100

Source: Author, 2014.

The study managed to obtain 40 completed questionnaires representing 62.5% response rate. This response was adequate to allow the researcher to continue with the analysis.

## 4.2 Data Presentation

### 4.2.1 Data Validity

The researcher issued six questionnaires to six respondents in the manufacturing firms so as to conduct a pilot test. Piloting of the research instrument was done to clarify the wording and grammar of the questionnaire so as to avoid misinterpretations; to avoid research bias; detect ambiguous questions; and to pick out in advance any problems in the methods of research. This helped to make the data used in the analysis valid.

### 4.2.2 Data Reliability

To test the reliability of the Likert scale used in this study, reliability analysis was done using Cronbach's Alpha as the measure. A reliability co-efficient of  $\alpha \geq 0.7$  was considered adequate. The output of the reliability analysis is as shown in Table 4.2.2;

**Table 4.2.2: Cronbach's Alpha**

<b>Reliability Statistics</b>		
Cronbach's Alpha Based on		
Cronbach's Alpha	Standardized Items	N of Items
0.823	0.835	53

**Source: Research Findings (2014).**

In this case, a reliability co-efficient of 0.823 was registered indicating a high level of internal consistency for the Likert scale used in this study. This indicated that the scale was reliable enough to test the extent to which procurement in the manufacturing firms was done.

### 4.3 General Demographics

#### 4.3.1 Job Position Held

The study sought to know the various job positions held by the respondents. The results of the study are as shown in the Table 4.3.1.

**Table 4.3.1: Position Held**

	<b>Frequency</b>	<b>Percent</b>
Supply chain manager	16	40.0
Procurement Manager	11	27.5
Supply chain officer	9	22.5
Assistant Supply chain manager	4	10
Total	40	100.0

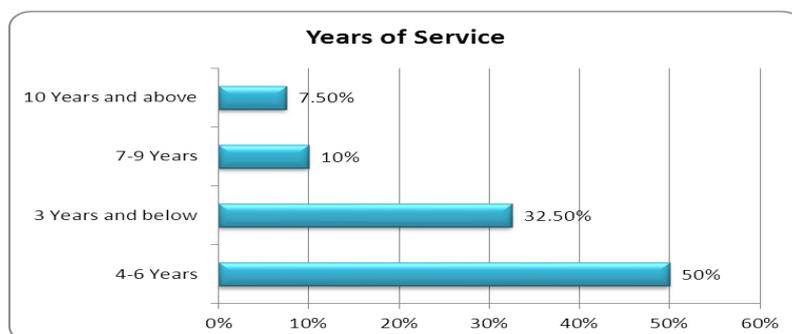
Source: Research Data (2014).

The study found out that 40% of the respondents were Supply chain managers followed by procurement managers at 27.5% and then supply chain officers at 22.5%. Assistant Supply chain managers were the least at 10. This indicates that the respondents by virtue of their job titles were in a position to understand the procurement outsourcing and supply chain performance issues sought by the researcher.

#### 4.3.2 Years of Service

The study further sought to establish the number of years the respondents had been working for the manufacturing firms. The results are as shown in Figure 4.3.2.

**Figure 4.3.2: Years of Service**



Source: Research Data (2014).

The study established that 50% of the respondents had been working in their respective firms for 4-6 years followed by those who worked for less than 3 years at 32.5%. Those with an experience of above 10 years accounted for 7.5% only. This indicates that the researchers' obtained their data from people with diverse years of experience.

#### 4.4 Procurement Outsourcing Practices

In this section, the study sought to know the extent to which the manufacturing firms had been outsourcing various procurement practices. Analysis of the data was done using means and standard deviations. The practices were rated on a scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Large Extent; 5=Very Large Extent. The results of the study are as discussed below;

##### 4.4.1 Distribution and Logistics Services

On the extent to which Distribution and Logistics Services were outsourced, the results of the study are as shown in Table 4.4.1.

**Table 4.4.1: Distribution and Logistics Services**

<b>Distribution and Logistics Services</b>	<b>Mean</b>	<b>Std. Deviation</b>
The firm outsources import/export services	4.65	0.77
The firm outsources all sea cargo shipping	4.43	0.64
The firm outsources transportation of hazardous materials	4.15	0.64
The firm outsources air freight services	4.01	0.74
Transportation of finished goods is outsourced by the firm	3.95	0.83
<b>Overall Mean</b>	<b>4.238</b>	<b>0.724</b>

Source: Research Data (2014).

A mean of between 3.95 and 4.65 was done indicating that distribution and logistics services were outsourced to between a great extent and a very great extent. An overall mean of ( $M = 4.238$ ,  $SD = 0.724$ ) was registered indicating that distribution and logistics services were outsourced to a great extent. Outsourcing of import/export services was done to a very great extent as indicated by the overall mean of ( $M = 4.65$ ,  $SD = 0.77$ ). It was followed by outsourcing of sea cargo shipping with a mean of

( $M = 4.43$ ,  $SD = 0.64$ ) indicating it was outsourced to a great extent. However, the respondents' opinions were varying as evidenced by the standard deviations recorded. For instance, transportation of finished goods is outsourced by the firm while they agreed more on the statements that the firm outsources all sea cargo shipping and that the firm outsources transportation of hazardous materials. This implies that outsourcing of distribution and logistics has inherent benefits that make firms to outsource them.

This is line with the findings of Lambert et al. (1999), who found out that outsourcing logistics activities has increasingly become an effective way to reduce costs and spread risks.

#### 4.4.2 Warehousing Services

The results of the study on the extent to which Warehousing Services are outsourced done are as shown in Table 4.4.2. The warehousing services were rated on a scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Large Extent; 5=Very Large Extent. The results of the study are as discussed below;

**Table 4.4.2: Warehousing Services**

<b>Warehousing Services</b>	<b>Mean</b>	<b>Std. Deviation</b>
The firm outsources the storage of its raw materials	3.97	0.99
Processing and dispatching of orders in outsourced warehouses	3.73	1.12
The firm outsources the storage of its finished goods	3.40	1.19
The firm outsources the storage of its unfinished goods	3.35	0.89
Packaging of finished goods is done in outsourced warehouses	3.12	0.96
<b>Overall Mean</b>	<b>3.51</b>	<b>1.03</b>

Source: Research Data (2014).

The study established that firms in the manufacturing sector outsource the storage of its raw materials to a great extent as evidenced by a mean of ( $M = 3.97$ ,  $SD = 0.99$ )

followed by the statement that processing and dispatching of orders is done in outsourced warehouses ( $M = 3.73$ ,  $SD = 1.12$ ) indicating it was done to a great extent. Packaging of finished goods being done in outsourced warehouses was the least rated ( $M = 3.12$ ,  $SD = 0.96$ ) indicating it was outsourced moderate extent. Overall, warehousing services were done to a great extent as evinced by ( $M = 3.51$ ,  $SD = 1.03$ ).

The study findings are consistent with the existing literature where Lieb et al. (1996) argued that there are third party logistics companies that offer warehouse management services. However, the respondents had varying opinions as evidenced in by the registered standard deviations. Outsourcing the storage of its unfinished goods had the least deviation (0.89) while outsourcing the storage of its finished goods had the greatest deviation (1.12).

#### 4.4.3 Information Systems Management

The findings of the study on the extent to which Information Systems Management is outsourced are as shown in Table 4.4.3. The Information Systems Management practices were rated on a scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Large Extent; 5=Very Large Extent. The results of the study are as discussed below;

**Table 4.4.3: Information Systems Management**

<b>Information Systems Management</b>	<b>Mean</b>	<b>Std. Deviation</b>
The firm outsources the maintenance of its SCM system	3.93	0.89
The firm outsources its SCM system personnel	3.83	1.22
The firm outsources its order processing system	3.63	1.23
The firm outsources its payment management system	3.33	1.16
The firm outsources its inventory control system	3.25	1.06
<b>Overall Mean</b>	<b>3.594</b>	<b>1.112</b>

Source: Research Data (2014).

The study established that manufacturing firms in Kenya outsource information management system to a moderate extent as evidenced by an overall mean of 3.594. Outsourcing of maintenance of its SCM system was done to a great extent ( $M = 3.93$ ,  $SD = 0.89$ ) followed by outsourcing of SCM system personnel with a mean of ( $M = 3.83$ ,  $SD = 1.22$ ) indicating it was done a great extent. Outsourcing of order processing system was also done to a great extent ( $M = 3.63$ ,  $SD = 1.23$ ). Outsourcing of inventory control system was the least outsourced with a mean of ( $M = 3.25$ ,  $SD = 1.06$ ) implying it was done to a moderate extent. The respondents differed the least on outsourcing of maintenance of its SCM system as shown by the least standard deviation (0.89) while they differed more on outsourcing of order processing system (Std. Deviation = 1.23).

This implies that many manufacturing firms outsource procurement information system services as argued out by Lieb et al. (1996) who found out that there many third party logistics companies that offer logistics information systems.

#### **4.4.4 Consultancy Services**

The findings of the study on the extent to which Consultancy Services are outsourced are as shown in Table 4.4.4. The Consultancy Services were rated on a scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Large Extent; 5=Very Large Extent.

**Table 4.4.4: Purchasing Functions**

<b>Purchasing Functions</b>	<b>Mean</b>	<b>Std. Deviation</b>
The firm outsources consultancy services on how to optimize productivity	3.95	1.15
The firm outsources consultancy services on how to reduced operational costs	3.93	1.28
The firm outsources consultancy services on how to increase Supply Chain visibility	3.85	1.00
The firm outsources consultancy services on how to increase the quality of goods and services	3.63	1.19
The firm outsources consultancy services on how to improved customer care	3.13	1.18
<b>Overall Mean</b>	<b>3.696</b>	<b>1.161</b>

Source: Research Data (2014).

The study established that outsourcing of consultancy services was done to a great extent as evinced by ( $M = 3.696$ ,  $SD = 1.161$ ). The most outsourced consultancy services were on how to optimize productivity with a mean of ( $M = 3.95$ ,  $SD = 1.15$ ). Outsourcing of consultancy services on how to reduce operational costs was done to a great extent as shown by a mean of ( $M = 3.93$ ,  $SD = 1.28$ ). Outsourcing of consultancy services on how to increase Supply Chain visibility was also done to a great extent as evidenced by an a mean of 3.85. The least outsourced consultancy service was on how to improved customer care with a mean of ( $M = 3.13$ ,  $SD = 1.18$ ) indicating that it was done to a moderate extent.

Minahan (1995) found out that there are management-based vendors who are involved in offering logistics management services such as consulting services implying that there are also firms that outsource consultancy services as evidenced by the findings of this study.

#### 4.4.5 Purchasing Functions

The findings of the study on the extent to which Purchasing Functions are outsourced are as shown in Table 4.4.5. The Purchasing Functions were rated on a scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Large Extent; 5=Very Large Extent.

**Table 4.4.5: Purchasing Functions**

<b>Purchasing Functions</b>	<b>Mean</b>	<b>Std. Deviation</b>
The firm outsources specification compliance services	3.45	1.03
The firm outsources supplier selection	3.41	0.93
The firm outsources negotiation services	3.38	1.09
The firm outsources the evaluation of prices	3.23	1.26
The firm outsources all paperwork and accounting services	3.05	0.89
<b>Overall Mean</b>	<b>3.31</b>	<b>1.06</b>

Source: Research Data (2014).

Outsourcing of purchasing functions by manufacturing firms in Kenya was done to a moderate extent as evidenced by an overall mean of ( $M = 3.31$ ,  $SD = 1.06$ ). The most outsourced purchasing function was that of specification compliance with a mean of ( $M = 3.45$ ,  $SD = 1.03$ ) followed by supplier selection and negotiation services with means of ( $M = 3.41$ ,  $SD = 0.93$ ) and ( $M = 3.38$ ,  $SD = 1.09$ ) respectively. Outsourcing of all paperwork and accounting services was the least done with a mean of ( $M = 3.05$ ,  $SD = 0.89$ ) indicating it was outsourced to a moderate extent. This implies that the manufacturing firms in Kenya prefer to handle all the money related issues. The respondents had most varying opinions on outsourcing of evaluation of prices with a deviation of 1.26 while they had the least varying opinions on outsourcing all paperwork and accounting services as shown by a standard deviation of 0.89.

Lieb et al. (1996) found out that there are many companies that offer purchasing functions implying that there are also many firms that prefer to outsource purchasing functions.

#### 4.4.6 Supplier Management

The findings of the study on the extent to which Supplier Management are outsourced are as shown in Table 4.4.6. The Supplier Management practices were rated on a scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Large Extent; 5=Very Large Extent.

**Table 4.4.6: Supplier Management**

<b>Supplier Management Practices</b>	<b>Mean</b>	<b>Std. Deviation</b>
The firm outsources supplier evaluation and selection services	4.03	1.17
The firm outsources supplier communication services	3.98	1.48
The firm outsources supplier relationship management services	3.68	1.42
The firm outsources supplier development services	3.65	1.35
The firm outsources supplier motivation services	3.63	1.35
<b>Overall Mean</b>	<b>3.79</b>	<b>1.35</b>

Source: Research Data (2014).

The study established that supplier management outsourcing was done a great extent as evidenced by the overall mean of ( $M = 3.79, SD = 1.35$ ). The most outsourced supplier management service was supplier evaluation and selection services with mean of ( $M = 4.03, SD = 1.17$ ) indicating that it was outsourced to a great extent. Outsourcing of supplier communication services was also done to a great extent as supported by a mean of ( $M = 3.98, SD = 1.48$ ). Supplier motivation services were the least outsourced as shown by the least mean of ( $M = 3.63, SD = 1.35$ ). However, it was still outsourced to a great extent. The significant standard deviations recorded indicated that the responses were greatly spread-out from the mean.

According Krause and Ellram (1997), outsourcing of supplier evaluation and selection services ensures that the best in class suppliers are approved and that they are available for use.

#### 4.4.7 Inventory Management

The findings of the study on the extent to which Inventory Management are outsourced are as shown in Table 4.4.7. The Inventory management practices were rated on a scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Large Extent; 5=Very Large Extent.

**Table 4.4.7: Inventory Management**

<b>Inventory Management Practices</b>	<b>Mean</b>	<b>Std. Deviation</b>
The firm outsources inventory auditing services	4.68	1.23
The firm outsources inventory tracking services	4.03	1.35
Inventory forecasting and demand management is outsourced	3.90	1.24
The firm outsources lead-time analysis and reduction services	3.28	1.41
The firm outsources inventory planning and replenishment	3.23	1.32
<b>Overall Mean</b>	<b>3.82</b>	<b>1.31</b>

Source: Research Data (2014).

The study found out that manufacturing firms outsource Inventory Management services to a great extent as evidenced by the overall mean of ( $M = 3.82$ ,  $SD = 1.31$ ). The most outsourced inventory management service was inventory auditing services with a mean of ( $M = 4.68$ ,  $SD = 1.23$ ) indicating it was outsourced to a very great extent followed by inventory tracking services with a mean of ( $M = 4.03$ ,  $SD = 1.35$ ) indicating it was outsourced to a great extent. Inventory forecasting and demand management was outsourced to a great extent as shown by the mean of ( $M = 3.90$ ,  $SD = 1.24$ ). Inventory planning and replenishment was the least outsourced with a mean ( $M= 3.23$ ,  $SD= 1.32$ ) implying it was outsourced to a moderate extent. The

responses were greatly spread-out from the mean as evidenced by the standard deviations registered.

These findings are in line with the arguments of Fawcett et al., (1993) who said that third-party providers are increasingly being utilized for value-added activities such as inventory management.

#### 4.5 Supply Chain Performance

In this section, the study sought to know how the respondents rated the supply chain performance of the manufacturing firms they worked for. Different parameters were used to measure supply chain performance. The Supply Chain Performance Parameters were rated on a Likert scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Large Extent; 5=Very Large Extent. The results of the study are as shown in

**Table 4.5;**

**Table 4.5: Supply Chain Performance**

<b>Performance Parameters</b>	<b>Mean</b>	<b>Std. Deviation</b>
Increased productivity	4.52	0.97
Cost minimization	4.35	1.35
Profit maximization	4.20	1.36
Operational efficiency	4.15	1.23
Customer Satisfaction	4.00	1.11
Timely Delivery of orders	3.98	1.28
Capacity utilization	3.33	0.82
<b>Overall Mean</b>	<b>4.07</b>	<b>1.16</b>

Source: Research Data (2014).

The study established that supply chain performance of the respondents manufacturing firms was rated to be doing well to a great extent as evidenced by a mean of (M = 4.07, SD = 1.16). The firms were rated to be performing well on increased productivity with

a mean of ( $M = 4.52$ ,  $SD = 0.97$ ) indicating that productivity was doing well to a very great extent followed by cost minimization with a mean of ( $M = 4.35$ ,  $SD = 1.35$ ) and then profit maximization with a mean of ( $M = 4.20$ ,  $SD = 1.36$ ) indicating that they were rated to be doing well to a great extent. The firms were also rated to have an Operational efficiency to a great extent as shown by a mean of ( $M = 4.15$ ,  $SD = 1.23$ ). However, the supply chain performance has been experiencing fluctuations as evidenced by the significant standard deviations recorded.

The study findings supports the findings of Carrington (1994) who found that procurement outsourcing leads to cost reduction where savings from procurement outsourcing are realized due to the use of external resources rather than internal resources to provide for the firm the same level of procurement services at a much lower cost. According to Weaver et al. (2000), the costs that are reduced are; staff costs, administrative costs, training costs, recruitment costs as well as operating costs.

#### **4.6 Procurement Outsourcing and Supply Chain Performance**

The study sought to establish the relationship between procurement outsourcing and supply chain performance. The scores to be regressed were computed through factor analysis and then saved as variables. The researcher then conducted a regression analysis to explain this relationship using Statistical Package for Social Sciences. Regression analysis was conducted. The results obtained are presented and discussed below;

#### 4.6.1 Model Summary

**Table 4.6.1: Model Summary**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.711 <sup>a</sup>	0.506	0.403	0.77261389
a. Predictors: (Constant), Distribution and Logistics Services, Warehousing Services, Information Systems Management, Consultancy Services, Purchasing Functions, Supplier Management, Inventory management.				

Source: Research Data (2014).

The research study wanted to establish the impact of procurement outsourcing on supply chain performance of manufacturing firms in Kenya. The key procurement practices outsourced were: Distribution and Logistics Services, Warehousing Services, Information Systems Management, Consultancy Services, Purchasing Functions, Supplier Management, Inventory Management. The research findings indicated that there was a strong and positive relationship ( $R = 0.711$ ) between procurement outsourcing and supply chain performance. The result of the study also indicates that the value of adjusted R-squared is 0.403. This means that procurement outsourcing accounts for or explains 40.3% of the supply chain performance. The remaining 59.7% are explained by other variables which were not considered under this study.

#### 4.6.2 Coefficients of Determination

**Table 4.6.2 Coefficients of Determination**

Model	Unstandardized Coefficients		Standardized Coefficients	t	(p-value)
	B	Std. Error	Beta		(p-value)
(Constant)	0.123	0.24348		10.164	0.000
Distribution and Logistics Services	0.612	0.32633	0.510	3.112	0.036
Warehousing Services	0.548	0.20661	0.499	2.756	0.051
Information Systems Management	0.363	0.26065	0.328	3.865	0.021
Consultancy Services	0.544	0.13687	0.425	5.658	0.005
Purchasing Functions	0.351	0.35361	0.296	2.534	0.058
Supplier Management	0.265	0.35122	0.241	9.479	0.000
Inventory management	0.456	0.24124	0.354	3.398	0.032
a. Dependent Variable: Supply Chain Performance					

Source: Research Data (2014).

From the table 4.6.2 above it was evident that at 95% confidence level, the entire variable produces statistically significant values for this study (high t-values,  $p \leq 0.05$ ). Positive effect was reported all the independent variables. The constant value (1.23) shows that if Distribution and Logistics Services, Warehousing Services, Information Systems Management, Consultancy Services, Purchasing Functions, Supplier Management and Inventory management were all rated zero, supply chain performance of manufacturing firms would be 0.123. Stochastic error term was assumed to be zero.

The equation for the regression model is expressed as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \varepsilon$$

$$Y = 0.123 + 0.612X_1 + 0.548X_2 + 0.363X_3 + 0.544X_4 + 0.351X_5 + 0.265\beta_6 X_6 + 0.456X_7$$

Where

Y –Supply Chain Performance

X<sub>1</sub>- Distribution and Logistics Services

X<sub>2</sub>- Warehousing services

X<sub>3</sub>- Information Systems Management

X<sub>4</sub>- Consultancy Services

X<sub>5</sub>- Purchasing Functions

X<sub>6</sub>- Supplier Management

X<sub>7</sub>- Inventory management

#### 4.6.3 Analysis of Variance

The findings were also verified through ANOVA statistics. The findings are as shown in Table 4.6.3 below.

**Table 4.3.3 Analysis of Variance (ANOVA)**

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	(p-value) Sig.
1	Regression	14.674	5	2.935	4.916	0.003 <sup>a</sup>
	Residual	14.326	24	0.597		
	Total	29.000	29			
a. Predictors: (Constant), Distribution and Logistics Services, Warehousing Services, Information Systems Management, Consultancy Services, Purchasing Functions, Supplier Management, Inventory management.						
b. Dependent Variable: Supply Chain Performance						

Source: Research Data (2014).

In this case, the findings were statistically significant as evidenced by ( $F= 4.916, p \leq 0.05$ ).

#### 4.7 Challenges of Procurement Outsourcing

Respondents were asked to indicate the extent to which they face challenges related to procurement outsourcing on a scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Large Extent; 5=Very Large Extent.

**Table 4.6: Challenges of Procurement Outsourcing**

<b>Challenges</b>	<b>Mean</b>	<b>Std. Deviation</b>
Increased competition due to information leaks	3.73	1.09
Compromised product quality	3.55	1.08
The risk of incompetent suppliers of the products	3.30	1.34
Loss of control e.g. interferences with a firms data privacy	3.15	1.23
Outsourcing critical components to suppliers may open up	2.85	1.48
Supplier complacency over time	2.78	1.39
Constraints by insufficient resources	2.48	1.32
Internal resistance among employees	2.43	1.26
Negative impact on employees through reduced morale	2.43	1.39
The risk of discontinuity in the service delivery	2.28	1.26
Loss of competitive advantage due to loss of skills	2.05	1.13
<b>Overall Mean</b>	<b>2.82</b>	<b>1.27</b>

Source: Research Data (2014).

The study established that the manufacturing firms faced challenges when outsourcing procurement activities to a moderate extent as evidenced by an overall mean of ( $M = 2.82, SD = 1.27$ ). The most faced challenges was increased competition due to information leaks with a mean of ( $M = 3.73, SD = 1.09$ ) indicating it was faced to a moderate extent followed by compromised product quality with a mean of ( $M = 3.55, SD = 1.08$ ) indicating that both were faced to a great extent. The risk of incompetent suppliers of the products and Loss of control were faced to a moderate extent as show

by means of ( $M = 3.30, SD = 1.34$ ) and ( $M = 3.15, SD = 1.23$ ). The risk of discontinuity in the service delivery and loss of competitive advantage due to loss of skills were the least faced challenges with a means of ( $M = 2.28, SD = 1.26$ ) and ( $M = 2.05, SD = 1.13$ ) indicating they were faced to a small extent. The respondents however had varying opinions as indicated by the standard deviations.

The study findings were similar to those of Lysons and Farrington (2006) concluded that outsourcing procurement becomes a challenge due to the many suppliers that are involved needing coordination. There could be issues like complacency over time, lack of control of larger suppliers and lack of commitment.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter discusses the summary of findings, the conclusions drawn by the study, recommendations for policy change and suggestions for future research. The study then presents the major limitations of the study. The study sought to determine the extent to which procurement outsourcing was done; the effect of procurement outsourcing on supply chain performance and the challenges in procurement outsourcing among manufacturing firms in Nairobi, Kenya.

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

The study sought to establish the relationship between procurement outsourcing and supply chain performance. The procurement outsourcing variables affecting supply chain performance were: distribution and logistics services, warehousing services, information systems management, consultancy services, purchasing functions, supplier management and inventory management. The study revealed that the manufacturing firms outsourced all the practices to a great extent except for purchasing functions which were outsourced to a moderate extent. The research findings further indicated that there was a positive relationship between procurement outsourcing and supply chain performance. The study respondents rated the supply chain of their manufacturing firms to be performing well in terms of increased productivity, cost minimization, profit maximization, operational efficiency, customer Satisfaction, timely delivery of orders and capacity utilization. However, procurement outsourcing faced various challenges such as increased competition due to information leaks,

compromised product quality, the risk of incompetent suppliers and loss of control such as interferences with a firm's data privacy.

### **5.3 Conclusion**

The study sought to determine the extent to which procurement outsourcing was done. The study concludes that the manufacturing firms outsource procurement practices such as distribution and logistics services, warehousing services, information systems management, consultancy services, supplier management and inventory management to a great extent. Purchasing functions were outsourced only to a moderate extent.

On the effect of procurement outsourcing on the supply chain performance of manufacturing firms in Nairobi, Kenya, the study concludes that outsourcing procurement activities leads to improved supply chain performance in ways such as increased productivity, minimized costs, maximized profits, increased operational efficiency and increased customer satisfaction.

On the challenges facing procurement outsourcing in the manufacturing firms, the study concludes that the challenges are faced to a moderate extent. The most faced challenges are: increased competition due to information leaks, compromised product and service quality, the risk of incompetent suppliers of the products and loss of control.

### **5.4 Recommendations for Policy Change**

This study recommends the following measures to ensure continued improvement in supply chain performance as a result of procurement outsourcing: The managements of manufacturing firms should take legal precautions against the third parties offering the services or products being outsourced to prevent information leaks or a breach of company privacy.

The study further recommends that the manufacturing firms in Kenya should endeavor to fully understand the risks involved in procurement outsourcing as a means of enabling them to come up with strategies aimed at improving the overall supply chain performance.

The study also recommends that the management of the manufacturing firms should carry out a benchmarking activity against the best players in the market as a way of improving their procurement outsourcing practices. This would enable them to achieve undisputed performance of their supply chains.

### **5.5 Limitations of the Study**

Firm information is proprietary and confidential. Most of the respondents approached were reluctant in giving some information fearing that the information sought would be used to intimidate them or create a negative image of the firms they work for. The researcher handled the problem carrying an introduction letter from the university so as to assure them that the information will be treated as confidential and will be used purely for academic purposes.

The study mainly depended on the data provided by the respondents. This means that the accuracy of the data provided depended on the information provided. The respondents handled the challenge by making calls to clarifications.

The respondents had busy working schedules which delayed the completion of the data collection process was another major challenge. The researchers had to exercise utmost patience and make extra effort in reminding respondents and making constant follow-ups so as to acquire sufficient data from respondents.

## **5.6 Areas for Further Research**

The following directions for future research should be adopted in relation to procurement outsourcing. A research into the other factors influencing supply chain performance would be very relevant since procurement outsourcing can only account for 40.3% of the supply chain performance.

The study only focused on the manufacturing firms in Kenya. In future, the same study can be extent to non-manufacturing firms to enable availability of data for comparison purposes.

Lastly, this study never considered the possible solutions to the challenges facing the manufacturing firms during the process of outsourcing procurement services. This will serve to enlighten the management on how to tackle such challenges which undermine the supply chain performance of the firms.

## REFERENCES

- Baily, Farmer, D. Jessop and D. Jones, (1994) *Purchasing principles and Management*.
- Ballou, R.H. (2003), *Business Logistics Management*, Fifth Edition, Upper Saddle River, NJ: Pearson Prentice Hall, p.98.
- Barney, J. (1991). *Firms resources and sustained competitive advantage* Journal of management 17 (1): 99
- Beamon B.M. and Balcik B.,( 2008). *Performance measurement in humanitarian relief chains. International Journal of Public Sector Management*, Vol. 21 No. 1, pp. 4–25.
- Benchmark index 2010.*Performance of manufacturing companies*.
- Benmaridja, M and Benmaridja, A (1996), *Is it interesting for a company to outsource purchasing and under what conditions?* Paper presented at IPSERIA conference, Eindhoven.
- Berry, A.J; Coad, A.F; Harris, E.P; Otley, D.T; Stringer, C (2009). *Emerging themes in management control: a review of recent literature*. The British Accounting.
- Beulen,E., Baas, R.,Dain,J.,Hudson, J., Reitsma, E., Symonds, M.& Van der Zee,H (2000).*Outsourcing: The Atos origin outsourcing lifecycle? Building successful outsourcing relationships*, White paper, Atos Origin.
- Bill H and Tim M (2010).*Procurement outsourcing. Not an all or nothing value proposition*.
- Bower, J. L., & Hout, T. M. (1988). *Fast cycle capability for competitive power*. Harvard Business Review, 110–118.
- Brewer, P.; Speh, T.(2000). Using the balanced scorecard to measure supply chain performance. *Journal of Business Logistics*, Vol. 21, n.1, 2000.
- Carrington ,L.,(1994)*Outside chances*. Personnel Today pp.34,Feb
- Carter, P.L., Monczka, R. M., and Mosconi, T. (2005) ‘*Strategic Performance Measurement for Purchasing and Supply*,’ CAPS Research.
- Chopra,S., and Meindl,P .(2001), *Information Technology and the supply Chain, in Supply Chain Management: Strategy, Planning and Operation*, Upper Saddle River, NJ: Prentice Hall, chapter 16.

- Christopher, M. (1992). *Logistics and supply chain management*. London: Pitman Publishing
- Cooper M.C., Lambert D.M. and Pagh J.D., 1997. Supply chain management: More than a new name for logistics. *The International Journal of Logistics Management*, Vol. 8 No.1, pp.1–13.
- Cooper, D R & Schindler PS (1998) *Business Research Methods*, McGraw-Hill, NY
- Das, T..K. and B.S. Teng (2000). *A Resource Based Theory of Strategic Alliances*. *Journal of management* 26(1): 31.
- Deming, E.W. (1986) *Out of Crisis*, Cambridge, MA: MIT Center for Advanced Engineering.
- Eng, E.Q. & Yusof, S.M. (2003) A survey of TQM practices in the Malaysian electrical and electronic industry, *Total Quality Management*, 14(1), pp. 63-77.
- Evans, R. (1996).*The outsourcing Myth*. Information Strategy.
- Flynn, B.B., Schroeder, R.G. & Sakakibara, S. (1995) The impact of quality management practices on performance and competitive advantage, *Decision Sciences*, 26(5), pp. 659-691.
- Folan, P; Browne, J. *A review of performance measurement: Towards performance management*. *Computers in Industry*, Vol. 56, 2005.
- Gelders, L., Mannaert, P., & Maes, J. (1994). Manufacturing strategy performance indicators and improvement programs. *International Journal of Production Research*, 32(4), 797–805.
- Government of Kenya, (1997-2001).
- Grossman ,G.M.and Helpman,E(2005) *Outsourcing in a global economy* .
- Gunasekaran, A. and Kobu, B., (2007). *Performance measures and metrics in logistics and supply*
- Gunasekaran, A., Patel, C., & Tirtiroglu, E. (2001). *Performance measures and metrics in a supply chain environment*. *International Journal of Production and Operations Management*, 21(1/2), 71–87.
- Hackett Group (2011) *Operations Consulting*.
- Handfield R.B., Monczka R.M., Larry C.G and James L.P (2009). *Sourcing and Supply Chain Management*. 4<sup>th</sup> ed

- Harland, C., L. Knight, et al. (2005). *Outsourcing: assessing the risks and benefits for organizations, sectors and nations*. International Journal of Operational and Production Management 25(9): pg 31- 50.
- Hiles,A(1989),*Service level agreements*”. Payroll Managers Review, no 7, 70-1.
- Hirsch, C., and Barbalho, M. (2003), ``Toward World Class Procurement, `` Supply Chain Management review, 5(6), 75.
- Jacobs,F.R.(2009).*Operations and Supply Management,12<sup>th</sup> ed*, Indian University.
- Joel D.Wisner.& Linda L.Stanley (2008).*Process Management: Creating Value along the Supply Chain; Texts &Cases*.
- John ,S (2012) *12 Key metrics for supply chain management*.
- Juran, J.M. (1992) *Juran on quality by design: the new steps for planning quality into goods and services*, The Free Press.
- Juran, J.M. (1993) Made in USA: a renaissance in quality, *Harvard Business Review*, 71, pp. 42-50.
- Kangaru, M (2011), Challenges of business outsourcing at the Kenya Power, *Unpublished MBA Project*,University of Nairobi
- Kaplan, R. & Norton, D. (1996a): *The balanced scorecard. Translating strategy into action*. Boston, Mass.: Harvard Business School Press.
- Kaplan, R. & Norton, D. (2000): *Having Trouble with Your Strategy? Then Map It*, Harvard Business Review, Vol. 78, No. 5, 167–176.
- Kaplan, R. & Norton, D. (2001): *Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part I*, Accounting Horizons, Vol. 15, No. 1, 87–104.
- Kaplan, S.; Norton, D., 2000. Having Trouble with your Strategy? Then Map It. Harvard
- Kenneth Lysons and Brian Farrington (2006) *Purchasing and Supply Chain Management*
- Kenya Association Of Manufacturers,2011.
- Kotler,P. (2000).*Marketing management* ,Upper Saddle River, NJ: Prentice –Hall.
- Langlos, R.N (1990). *Creating External Capability. Innovation and vertical Disintegration in the microcomputer Industry*. Business and Economic History19 (1): pg 93-102

- Langlos, R.N(1990). *Creating External Capability. Innovation and vertical Disintegration in the microcomputer Industry*. Business and Economic History 19 (1): pg 93-102
- Lawrence (2011).*Metrics used for Tracking the Performance of a Service Provider*
- Lenders, M.R., H.E. Fearon, A.E. Flynn, and P.F. Johnson( 2003)*Purchasing and Supply Management*. 12<sup>th</sup> edd. New York: Mc Graw – Hill Irwin,
- Lohman, C.; Fortuin, L; Wouters, M. *Designing a performance measurement system: a case study*. European Journal of Operational Research, Vol. 156, 2004.
- Lysons K. And Brian F (2012). *Purchasing and Supply Chain Management*, 8<sup>th</sup> ed.
- Mapes, J., New, C., & Szwejczewski, M. (1997). *Performance trade-offs in manufacturing plants*. International Journal of Operations and Production Management, 17(10), 1020–1033.
- Martin, P.R. and Patterson, J.W., 2009. *On measuring company performance within a supply chain*. International Journal of Production Research, 47 (9), 2449–2460.
- Mason-Jones, R., & Towill, D. R. (1997). *Enlightening supplies*. *Manufacturing Engineering*, 3, 156–160.
- Mentzer, J.T., DeWitt, W., Keebler, J.S., Min, S., Nix, N.W., Smith, C.D. and Zacharia, Z.G. (2001), “*Defining supply chain management*”, Journal of Business Logistics, Vol. 22 No. 2,
- Mentzer, J.T., DeWitt, W., Keebler, J.S., Min, S., Nix, N.W., Smith, C.D. and Zacharia, Z.G. (2004), “*Defining supply chain management*”, Journal of Business Logistics.
- Monczka, R.R., Trent. and R. Hanfield, (2002) *Purchasing and Supply Chain Management*, 2<sup>nd</sup> Ed . Cincinnati. South western,
- Novich, N. (1990). *Distribution strategy: Are you thinking small enough?* Sloan Management of Review, Fall, 71–77.
- O’Brien and Williams, (2004). ‘*Global Political Economy*.’
- Oakland, J. (2005) *From quality to excellence in the 21<sup>st</sup> century*, *Total Quality Management*, 16(8-9), pp. 1053-1060.
- Pagnocelli D (1994).*Outsourcing scientific and technological activities*. Proceedings of the Third International Conference on Systems Integration, 1:267-285.
- Pearce, J.A., & Robinson, R.B.(1997).*Strategic Management*. New York: McGraw Hill.

- Performance. *Journal of Business Logistics* 21(1), 75-93.
- Prahalad, C.K., and G.Hamel. (1990) .*The core competences of the corporation*, Harvard Business Review 68, no. 3: pg 79-91.
- Randall, H.L (1993) ,*Contract Logistics. Is outsourcing right for you?* The Free Press.
- Reck, R.F. and Long, B., (1998) *Purchasing a competitive weapon*, Journal of Purchasing and Materials Management, Fall.
- Review, Vol. 41, 2009.
- Robinson, P.J., Farris, C.W., and Wind, Y.J,I,( 1967) .*Industrial Buying and Creating Marketing* pg 14.
- Republic Of Kenya, (2012), Economic Survey. Nairobi Kenya: Government Printers.
- Republic Of Kenya, (2012), Kenya Bureau of statistics. Nairobi Kenya: Government Printers.
- Roy, V. and B.A. Aubert (2001). *A resource - based Analysis of Outsourcing Evidence from case study*. Cahier du GRESI NO 1:06.
- Shin, H., Collier, D.A. & Wilson, D.D. (2000) Supply management orientation and supplier/buyer performance, *Journal of Operations Management*, 18, pp. 317-333.
- Sigalia,ltd...2010.procurement leaders, the executive network.
- Slack, N., Chambers, S., Harland, C., Harrison, A., Johnston, R., 1995. Operations Management. Pitman Publishing, London.
- Stewart, G. (1995). *Supply chain performance benchmarking study reveals keys to supply chain excellence*. Logistics Information Management, 8(2), 38–44.
- Tan, K.C. (2001) A structural equation model of new product design and development, *Decision Sciences*, 32, pp. 195-226.
- Towill, D. R. (1997). *The seamless supply chain – The predator’s strategic advantage*. International Journal of Technology Management,14, 37–55.
- Trent, R.J., AND Kolchin, M.G.(1999), *Reducing the transaction costs of purchasing low value goods and services*, Tempe, A.Z; Center for Advanced Purchasing Studies.
- Van Weele, A. J.(1995)*Purchasing Management*, Prentice Hall.
- Van Wheele, A.J. (1994), ‘*Purchasing Performance Measurement and Evaluation*,’ International Journal of Purchasing and Material Management, Fall, 18-19

- Wambui M. (2010), Analysis of Outsourcing at Kenya Armed Forces, *Unpublished MBA Project*, University of Nairobi
- Weaver, P., L. Jansen, G. Grootveld and P. Vergrat (2000), *Sustainable Technology Development*, Sheffield: Greenleaf Publishing.
- Wouters, M., 2009. *A developmental approach to performance measures* – results from a longitudinal case study. *European Management Journal*, 27 (1), 64–78.

## APPENDIX I: RESEARCH QUESTIONNAIRE

This questionnaire has been designed to assist the researcher collect data. The research project is: “Procurement outsourcing and supply chain performance of manufacturing firms in Nairobi, Kenya”. You have been identified as one of the respondents in the study and are requested to complete the following questionnaire. The information you provide will be used only for the purpose of this study and will be held strictly confidential and in no way will your name or answers be revealed out. Please answer all the questions as best as you can.

### SECTION A: GENERAL INFORMATION

1. Name of the firm .....
2. What job position do you hold? .....
3. How long have been working with the firm
  - 3 Years and below..... [ ]
  - 4-6 Years..... [ ]
  - 7-9 Years..... [ ]
  - 10 Years and above..... [ ]

### SECTION B: PROCUREMENT OUTSOURCING PRACTICES

4. To what extent does your organization outsource the following procurement practices? Tick as appropriate using the following Likert scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Large Extent; 5=Very Large Extent.

	Procurement Practices Outsourced	Respondents Ratings				
		1	2	3	4	5
	<b>Distribution and Logistics Services</b>					
1	The firm outsources air freight services					
2	The firm outsources import/export services					
3	The firm outsources all sea cargo shipping					
4	The firm outsources transportation of hazardous materials					
5	Transportation of finished goods is outsourced by the firm					
	<b>Warehousing services</b>					

1	The firm outsources the storage of its raw materials.					
2	The firm outsources the storage of its unfinished goods					
3	The firm outsources the storage of its finished goods					
4	Packaging of finished goods is done in outsourced					
5	Processing and dispatching of orders is done in outsourced					
	<b>Information Systems Management</b>					
1	The firm outsources its inventory control system					
2	The firm outsources its SCM system personnel					
3	The firm outsources its order processing system					
4	The firm outsources its payment management system					
5	The firm outsources the maintenance of its SCM system					
	<b>Consultancy Services</b>					
1	The firm outsources consultancy services on how to reduced operational costs					
2	The firm outsources consultancy services on how to increase the quality of goods and services					
3	The firm outsources consultancy services on how to improve customer care					
4	The firm outsources consultancy services on how to optimize productivity					
5	The firm outsources consultancy services on how to increase Supply Chain visibility					
	<b>Purchasing Functions</b>					
1	The firm outsources the evaluation of prices					
2	The firm outsources supplier selection					
3	The firm outsources negotiation services					
4	The firm outsources specification compliance services					
5	The firm outsources all paperwork and accounting services					
	<b>Supplier Management</b>					
1	The firm outsources supplier evaluation and selection					
2	The firm outsources supplier relationship management					
3	The firm outsources supplier development services					

4	The firm outsources supplier motivation services					
5	The firm outsources supplier communication services					
	<b>Inventory management</b>					
1	The firm outsources inventory planning and replenishment					
2	The firm outsources inventory auditing services					
3	The firm outsources inventory forecasting and demand					
4	The firm outsources lead-time analysis and reduction					
5	The firm outsources inventory tracking services					

What other procurement practices does your organization outsource?

---



---

### SECTION C: SUPPLY CHAIN PERFORMANCE

5. How do you rate the supply chain performance of your firm? Tick as appropriate using the following Likert scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Large Extent; 5=Very Large Extent.

Performance Parameters	Respondents Ratings				
	1	2	3	4	5
Cost minimization					
Profit maximization					
Increased productivity					
Capacity utilization					
Timely Delivery of orders					
Customer Satisfaction					
Operational efficiency					

Indicate any other performance variable which in your opinion is enhanced by outsourcing procurement practices (Optional).

---



---

**SECTION C: CHALLENGES OF PROCUREMENT OUTSOURCING**

7. To what extent does your organization face the following challenges when outsourcing procurement practices? Tick as appropriate using the following Likert scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Large Extent; 5=Very Large Extent.

Challenges of Outsourcing	Respondents Ratings				
	1	2	3	4	5
Internal resistance among employees					
Increased competition due to information leaks					
Compromised product quality					
Negative impact on employees through reduced morale					
The risk of discontinuity in the service delivery					
The risk of incompetent suppliers of the products as well as services					
Supplier complacency over time					
Loss of control e.g. interferences with a firms data privacy					
Loss of competitive advantage due to loss of skills and expertise of staff					
Outsourcing critical components to suppliers may open up opportunities for competitors					
Constraints by insufficient resources					

What other challenges does your organization face when outsourcing procurement practices?

---



---



---

**Thank you very much for participating.**