INFLUENCE OF INVENTORY TECHNIQUES AND PERFORMANCE OF MICRO AND SMALL TRADING ENTERPRISES IN NAIROBI COUNTY KENYA

[1*] **Annevelyn Njoki Mbugua**
annjoki00@gmail.com

[2**] **Dr. Patrick Karanja Ngugi**
pkngugi@jkuat.ac.ke

[1, 2] *Jomo Kenyatta University of Agriculture and Technology*

Abstract

Purpose: the study aimed at evaluating the influence of inventory techniques and performance of Micro and Small Trading Enterprises in Nairobi County Kenya

Materials and methods: This study targeted registered small and medium trading enterprises in Nairobi County the study further employed a descriptive research design. This study targeted directors and employee of the small and medium trading enterprises in Nairobi County with over 320 directors and employees working in different sectors within the cosmopolitans of Nairobi County towns. The quantitative data generated was analyzed by use of descriptive statistics feature in SPSS to generate information which was presented using tables, charts, frequency distribution table and percentages and inferential statistics to make predictions or inferences about the population from observations and analyses of sample. The regression model was used to show the relationship between the dependent variable and the independent variables. The study targeted a sample of 178 managers and senior employees of Micro & Small trading enterprises in Nairobi County Out of the 178 distributed questionnaires, 148 were filled and returned.

Results: From the findings, effective inventory management lead to low storage costs, which in turn lead to an increase in the company's profits if inventory well managed helps to reduce the amount of goods to store, thus requiring less space, which will in turn lead to low warehouse rental costs.

Recommendations: When managing Inventory Poor planning and forecasting are direct causes of inventories that are out of balance with a business's needs. Accordingly, best-in-class companies also are placing more emphasis on demand planning and forecasting as an additional means of ensuring optimal inventory levels.

Keywords: *Performance, Demand forecasting, Economic Order Quantities J.I.T and Nairobi City County*

1.0 INTRODUCTION

1.1 Background of the Study

The study analyzed the influence of procurement management practices and performance of Micro & Small trading enterprises in Nairobi County Specifically, this chapter provides information on the global perspective of procurement management practices and performance and then narrows down to regional and then local perspectives. It highlights on the background information, statement of the problem, general and specific objectives, and research questions, justification of the study, the scope of the study and the limitations of the study.

The procurement management practices describe the methods and processes of modern corporate, small and medium trading enterprises institutional buying (Day& Moeller, 2010). The purchasing of supplies for internal use referred to as indirect

goods and services, purchasing raw materials for the consumption during the manufacturing process while for the purchasing of goods for inventory to be resold as products in the distribution and retail process (Dung, 2012).

According to Ahmed & Hendry (2012), states that supply chain management practices as a set of activities undertaken in an organization to promote effective management of its supply chain. SCM organizations are tasked with the responsibility of formulating and implementing strategies that if adopted will lead to the achievement of a sustained competitive advantage. Kasaya, (2013) states that In the era of turbulent environment occasioned by the globalization of competition and e-commerce, SMEs need to constantly scan the environment with a view to identifying and implementing supply chain practices that will enable an enterprise to achieve supply chain optimization using its limited resources (Logeek, 2010).

Lukhoba & Muturi (2015) elaborates that small and medium trading enterprise SMEs Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities (Kasaya, 2013). Importantly, it also includes coordination and collaboration with channel partners, which are suppliers, intermediaries, third party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies (Manyega, 2015).

Tynjala (2012), discusses that the Supply management deals primarily with the oversight and management of materials and services inputs, management of the suppliers who provide those inputs, and support of the process of acquiring those inputs (Sherer, 2010). The performance of supply management departments and SMEs operations commonly measured in terms of the amount of money saved for the organization. However, managing risk another aspect of supply management, with the risk of non-availability at the required time of quality goods and services for an organization's survival and growth (Saban, 2012).

According to Potter& Christopher (2015), states that Supply chain sequences of SMEs are facilities and functions that are involved in producing and delivering a product or a service. The sequence begins with the basic suppliers of raw materials and extends all the way to the final consumers (Mutuerandu & Iravo2014). The SMEs Facilities includes warehouses, processing centers, distribution centers, retail outlets, and offices. Functions and activities include forecasting, inventory management, information management, quality assurance, scheduling, production, distribution, delivery and customer service (Mongare & Nasidai 2014). Supply chain practices management for the SMEs involves the traditional internal activities that are embracing d enterprise scope, bringing trading partners together with the common goal of optimization and efficiency (Manyega, 2015). SCM creates a virtual organization composed of several independent entities with the common goal of efficiently and effectively managing all of its entities and operations, including the integration of purchasing, manufacturing, distribution, and logistics management (Mohamed & Azizan 2015).

According to Lukhoba & Muturi (2015), the short-term objective of SMEs is to increase productivity and reduce inventory and cycle time, while the long-term strategic goal is to increase customer satisfaction, productivity, and profits for all members of the virtual organization. (Logeek, 2010). Strategic partners in SMEs have realized that the purchasing function is a crucial link between the sources of supply and the organization itself, with support coming from overlapping activities to enhance manufacturability for both the customer and the supplier. (Kasaya, 2013). The involvement of purchasing in concurrent engineering is essential for selecting components to ensure that the requisite quality is designed into the

product and to aid in collapsing design-to-production cycle time (Kaluarachchi, 2010).

1.1.1 Global Perspective of procurement management practices

In today's increasingly globalized economy, Micro & Small enterprises (SMEs) are now considered to be the major source of dynamism, innovation and flexibility in emerging and developing countries, as well as to the economies of most industrialized nations. They contribute substantially to economic development and employment generation (Liao& Rao, 2010). SMEs form as a potential economic backbone of many regions and make a large contribution to employment than large firms (Li & Ziegler, 2014).

According to Lau (2010), the SME (Micro & Small enterprises) in the European Union and other international organizations are designate companies that have a limited, specified number of employees, while the United States typically uses the term SMB (Small to Medium Business) instead. Classification on SME is based on the number of employees, generally between 10 and 100, depending on the country in which the business is set up (Logeek, 2010). The importance of supply management in global business has prompted the formation of professional organizations to address the need for higher levels of supply management skill and expertise (Li & Ziegler, 2014).

In the face of a competitive global market, Micro & Small enterprises have downsized, focused on core competencies, and attempted to achieve competitive advantage by more effectively managing all procurement practices to value-adding activities (Liao& Rao, 2010). Malaysian SMEs have reduced their supply base so they can more effectively manage relationships with strategic suppliers. Liao& Rao, (2010) states that the buying firms are developing cooperative, mutually beneficial relationships with suppliers and viewing suppliers as virtual extensions of their Asian companies firm (Lau, 2010).Superior

supplier capability has led to exceptional quality or rapid integration of the latest technological breakthroughs into the buying firm's own products through early supplier involvement ((Li & Ziegler, 2014).Suppliers also participate earlier in the product design process to render more cost-effective design choices, develop alternative conceptual solutions, select the best components and technologies, and help in design assessment (Potter& Christopher, 2015).

They viewed SCM as a means to cut cost, quality assurance or maintain control through visibility of the supply chain (Mohamed & Azizan 2015) in which the majority of Malaysian SMEs have

sufficient knowledge on procurement practices. It is obvious that in the attempt of managing and responding to the increased complexity of markets, technologies, and suppliers, Malaysian SMEs will struggle even more with SCM as compared to large enterprises (Mohamed and Azizan 2015).

1.1.2 Regional Perspective of procurement management practices

According to Johnston& Cheng (2012) states that the Micro & Small enterprises (SMEs) have great potential for expansion in Africa, because they are agile and flexible enough to exploit the opportunities in the continent's growing economies. Kaluarachchi (2010), To succeed the SME in Africa have increased the inventory velocity, achieve the shortest possible cycle times, continually improve their supplier performance and drive their sales and productivity in which the Supply chain management is central to (Forker&Hershauer,2010).

The supply chain of Micro & Small enterprises (SMEs) in South Africa is a network of autonomous or semiautonomous business entities involved, through upstream and downstream links, in different business processes and activities that produce physical goods or services to customers (Day& Moeller,2010). It consists of a series of activities that an organisation uses to deliver value,

either in the form of a product, service, or a combination of both, to its customers (Davis-Sramek & Stank, 2010) Furthermore, the supply chain could be considered as an integration of materials and information flow between customer, Micro & Small enterprises (SMEs), and supplier.

Most of the supply chain process for the manufacturing medium enterprises (SMEs) in Ghana and Nigeria involves a number of sub processes which include: sales and operation planning, demand management, customer order management, production planning, control and execution, materials, quality and inventory (Davis-Sramek & Stank, 2010).the procurement processes also focus on strategic management on material procurement; distribution requirements planning; transportation and shipment management; and integrated supply and demand plan (Davis-Sramek & Stank, 2010).

The aim of Micro & Small enterprises (SMEs) supply chain management in East Africa such as Rwanda, Uganda, and Burundi is to achieve a balance between the goals of high-quality cost reduction and low inventory and unit cost (Irani & Jandaghi 2011). To further emphasize the importance of SCM, in such developing economies Micro & Small enterprises (SMEs) strategies are the critical backbone of business organizations today. Effective market coverage, availability of products at locations which hold the key to revenue recognition depends upon the effectiveness of supply chain strategy rolled out. (Irani & Jandaghi 2011).

When a product is introduced by Micro & Small enterprises (SMEs) in the market and advertised, the entire market in the country and all the sales counters need to have the product where the customer is able to buy and take delivery (Johnston& Cheng 2012). Any 'glitch' in the product not being available at the right time can result in the drop in customer interest and demand which can be disastrous. Transportation network design and management assume have been of importance to support sales and marketing strategy in most parts of Africa (Johnston& Cheng 2012).

1.1.3 Local Perspective of procurement management practices

Micro & Small enterprises operational and business opportunity has been influenced by the regulatory and institutional reforms heralded by the new constitution in Kenya (Gichuru & Arani, 2015). All over Kenya, SMEs are increasingly growing in recognition in terms of the important role they play in socio-economic growth.

As companies SMEs toward integrating their internal functions and begin to appreciate the workings of the larger systems to which they belong, they begin to generate a vivid understanding of the scope of procurement management practices. Kamau (2013) described that supplier collaboration as two or more companies working together to create a competitive advantage and higher profits than can be achieved by acting alone.

Successful collaboration printing press in Nairobi County Commercial Street relies on the development of mutual trust between SMEs and the major large suppliers of the raw materials, as well as the readiness to share information that can benefit all within the supply chain. (Gichuru & Arani, 2015). The goal is to treat all the supply SMEs equally (Gichuru & Arani, 2015). This mutual level of trust is enhanced by putting in place a set of service-level agreements and associated performance measurement tools that provide everyone with rapid and accurate feedback on how well collaborative efforts are being executed (Gichuru & Arani, 2015).

According to Kasaya (2013), Supplier Collaboration has been evident in many different aspects of the procurement practices and has been encouraged to grow in the already existing relationships between Kenya, SMEs that have contractual relationships (Whipple & Russell, 2014). Some supply chains have grown to be very

complex with multiple stages in the process. In Kenya, supply chain collaboration has been witnessed in the manufacturing sector, for example, where barley small-scale farmers collaborate with beer Micro & Small enterprises (SMEs). However, for small businesses even to some extent established firms do experience challenges in adopting supply chain collaboration practices (Gichuru & Arani, 2015).

Another emerging trend within Kenya, SMEs involves placing procurement, logistics, contract management, and forecasting/demand planning and similar management functions under the procurement management practices. This approach is appropriate for all companies, but it does give an idea of current thinking about supply chain management and the reporting structure in the SMEs sector (Kamau, 2013).

Best-in-class SMEs companies work closely with suppliers long after a deal has been signed. In most circles in Nairobi County, this is an approach to supplier relationship management that implies one-way communication telling the supplier how to do it. (Logeek, 2010). Two-way communication, which requires both buyer and seller to jointly manage the relationship, is more effective. A more appropriate term for this best practice might be "alliance management with representatives from both parties working together to enhance the buyer/supplier relationship (Manyega, 2015).

1.1.4 Small and Medium Trading Enterprises In Nairobi County

Micro & Small enterprises (SMEs) play an important role in Kenya's economic growth. According to Odhiambo (2013), SMEs form a critical sub-sector that employs about 80% of the Kenyan workforce. Micro & Small enterprises sector commonly referred to as jua kali constitute over 70% of manufacturing firms in Kenya and accounts for over 40% of the total employment (CBS-ROK, 2011). Small and medium enterprise is defined as an organization employing between 1 to

50 employees and with a ranging annual income of Ksh 4 million to Ksh 100 million (CBS-ROK, 2013).

Most retail businesses in Nairobi County are either small or medium-sized enterprises (SMEs) with a low turnover and a limited number of employees, usually owner-managed. Some of the businesses are registered under the Business Names Registration Act either as sole proprietors or partnerships, while others are not registered at all. A small number of SMEs is registered as private companies under the Companies Act, Cap 486 of the Laws of Kenya. The size of the premises is usually small, with only sample products being displayed. The owner provides all the managerial input including financing, marketing, sourcing and physical distribution management (Mutuerandu & Iravo2014).

Depending on the complexity of the supply chain or chain of distribution, retailers provide the vital link between the producers and customers or between wholesalers and final consumers (Mutuerandu & Iravo2014).Some of the upstream and downstream value adding services provided by retailers in the supply chain include bulk breaking, sorting of items, provision of credit facilities to consumers, stocking of a variety of merchandise from a number of wholesalers and producers, transportation, storage of products, provision of market information to the supply chain members and advertising of the producers product to the final consumers industry which includes Gikomba Market, Wakulima Market, Kariokor Market, Maasai Market and Toy market.

1.2 Statement of the Problem

The key element of successful SCM performance practices are not been put in place within the SMEs hence the survival and growth of SMEs in Nairobi County is becoming difficult in current competitive business environment and global marketplace; customers are more demanding to have better and cheaper products, higher service levels, more

product varieties and faster delivery (Kiraka, Kobia and Katwalo, 2013).In addition, the changes of business models with complex distribution channels, delivery of ever-increasing customer value, flexibility with superior service and the pervasive impact of quality management are increasingly creating mammoth challenges for businesses to survive. (Kiraka, Kobia & Katwalo 2013).

On several occasions SMEs in Nairobi County have been reported complaining of several problems associated with the poor supply chain management practices in the sector. The SMEs have always complained of between 25% to 35% increase in operating cost resulting to12-15 % profit margins decline. In 2013, 40% of Nyamakima and toy market SMEs were failing to sustain their operating cost in the competitive market with finding out that less than 5% of the SMEs survive beyond their first year of existence while only 5 to 10% survive and made it to maturity (ROK ,2012b). The factors influenced the GDP growth in Nairobi County compared to 4.7 percent in 2011 (KIPPRA 2013), with considerable but varied affecting all sectors i.e. agriculture and forestry, wholesale and retail trade, transport and communication, manufacturing and construction (KNBS 2013).

That a competitive SME sector is a critical and strategic engine for growth in attaining vision 2030 is not negotiable (Ford, 2014). Kithae, Gakure & Munyao, (2012) the supply chain performance of SMEs and vision 20130 is achievable through putting in place best procurement practices such Establish alliances with key suppliers. The study therefore majorly touched on the influence of procurement management practices and performance of Micro & Small trading enterprises to establish the various factors that affect the performance of supply chain in SMEs.

1.3.1 General Objective

The general objective of the study was to evaluate the influence of inventory techniques and performance of Micro and Small Trading Enterprises in Nairobi County Kenya

1.3.2 Specific Objectives

i. To analyze the effect of Demand forecasting and inventory techniques of Micro & Small trading enterprises in Nairobi County

ii. To establish role of Economic order quantities and inventory techniques of Micro & Small trading enterprises in Nairobi County.

iii. To determine influence of J.I.T and inventory techniques of Micro & Small trading enterprises in Nairobi County

2.1 Theoretical foundation and Literature

A theory is a set of statements or principles devised to explain group of facts or phenomenon especially one that has been repeatedly tested or is widely accepted and can be used to make prediction about natural phenomenon (Serkin, 2006). A theoretical review is a collection of interrelated statements or principles

2.2.4 Transaction Cost Theory

The study was based on Transaction Cost Theory in establishing influence of Inventory technique and performance of SMEs. Ronald Coase, Chester Barnard, and Herbert Simon are among the early authors who describe the contributions of transaction cost theory to the existence of firms (Scott, 2003; Williamson, 2005). Whether we look at supply chain, as a network or as an integrated process, the transaction cost theory explains the vertical connection and integration of various elements of organizational supply chain, from second tier and first tier suppliers to first tier and second tier customers.

Grover & Malhotra (2003) in their study concluded that transaction cost theory applies to organizational supply chain management in four facets: effort, monitor, problem, and advantage.

Effort to "build and maintain the relationship" with suppliers; cost of "monitoring the performance of suppliers"; resolving the problems that arises in the business relationships; and engagement of suppliers in "an opportunistic behavior". However, transaction cost theory is primarily concerned with the direct economic factors in organizations and hence fails to address some important aspects of the operation of organizational supply chain, including personal and human relations among actors in the supply chain. (Grover & Malhotra, 2003)

2.3.2 Inventory Techniques

According to (Cao & Zhang, 2011), defines that management of inventory and stock is an element of supply chain management, inventory management includes aspects such as controlling and overseeing ordering inventory, storage of inventory, and controlling the amount of product for sale (Cua & Schroeder,2011).

Blonska& Martin (2013), states that the Inventory management concerns the balance between replenishment lead time, carrying costs of inventory, asset management, inventory forecasting, inventory valuation, inventory visibility, future inventory price forecasting, physical inventory, available physical space, quality management, replenishment, returns and defective goods, and demand forecasting (Cua & Schroeder, 2011). Balancing these competing requirements leads to optimize inventory levels, which is an ongoing process as the business needs shift and react to the wider environment (Beers & Zand, 2014).

Awaysheh & Klassen (2010), states that the Inventory management involves a retailer seeking to acquire and maintain a proper merchandise assortment while ordering, shipping, handling and related costs are kept in check (Anbanandam & Shankar 2011). It also involves systems and

Processes that identify inventory requirements, set targets, provides replenishment techniques, reports actual and projected inventory status and handle all

functions related to the tracking and management of material (Anbanandam, & Shankar 2011).

Angeles & Nath (2013) discuss that inventory management includes the monitoring of material moved into and out of stockroom locations and the reconciling of the inventory balances. It also may include ABC analysis, lot tracking, and cycle counting support. (Beers & Zand, 2014). Management of the inventories, with the primary objective of determining controlling stock levels within the physical distribution system, functions to balance the need for product availability against the need for minimizing stock holding and handling costs (Beers & Zand, 2014).

Inventory level management must decide the maximum and minimum level of stocks and supplies that need to be kept in the warehouse or across the network of warehouse locations (Cua & Schroeder, 2011). Management must also set optimized re-order levels, safety stock levels, below which supply must not be allowed to fall and an average inventory level to ensure costs are contained (Gichuru & Arani, 2015).

2.4.2 Inventory Techniques

According to Sezhiyan & Nambirajan, (2010) studies, they identified that Vendor managed inventory (VMI) was an effective supply chain planning technique that aims at reducing logistics cost and improving service by coordinating the operations of different logistical entities across the supply chain. Saban (2012) added that traditionally, each logistical entity involved in the supply chain manages its own inventory independently. By centralizing the inventory control and coordinating the multi-echelon inventory replenishment under VMI, the system-wide logistics cost can be significantly reduced and the service level can be improved (Potter& Christopher, 2015).

Yang et al., (2010), studies identified that unified systems approach is required to successfully implement VMI, which can help effectively integrate the supplier, its downstream warehouses,

and retailers so that the product is produced and distributed at the right quantities, to the right locations, and at the right time. (Wong, 2011). Motivated by this recent popular supply chain initiative vendor managed inventory in the study of logistics network design problem integrating multi-echelon inventory management under the VMI framework in which the supplier manages the inventory of a single product for its downstream warehouses and retailers. Under this VMI framework, the system-wide inventory, including the inventory maintained at both warehouses and retailers, is owned by the supplier (Tynjala, 2012).

According to Sezhiyan & Nambirajan, (2010) findings The concept of inventory, stock or work-in-process has been extended from manufacturing systems to service businesses and projects, by generalizing the definition to be "all work within the process of production- all work that is or has occurred prior to the completion of production." In the context of a manufacturing production system, inventory refers to all work that has occurred - raw materials, partially finished products, finished products prior to sale and departure from the manufacturing system. In the context of services, inventory refers to all work done prior to sale, including partially process information (Potter& Christopher, 2015).

Liao& Rao, (2010) stated that centralized inventory management system coupled with inventory optimization software enables a company to better track inventory levels and prepare for unexpected events. Li & Ziegler (2014), added that They also avoid overstocking and under-stocking situations as demand patterns can automatically override the replenishment parameters based on predetermined stocking policies and service level targets (Tynjala, 2012).

2.2 Conceptual Framework

Orodho (2012) defines a conceptual framework as a graphical or a diagrammatical model of presentation of the relationship between variables

in the study. It is a road map that the study intends to follow with the aim of looking for answers to the problems raised by the research questions. According to Kothari (2011), a variable is a measurable characteristic that assumes different quantitative values among the subjects. The Figure 1.1 below illustrates the relationship between independent and dependent variables.
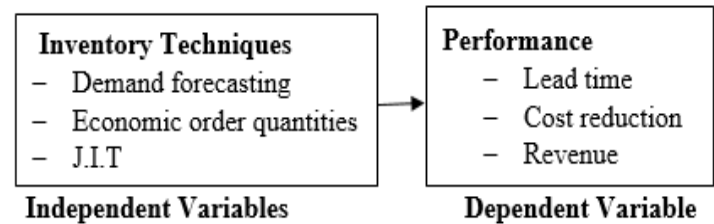

Figure 1.1 Conceptual Framework

3.0 METHODOLOGY

This study targeted registered small and medium trading enterprises in Nairobi County the study further employed a descriptive research design. This study targeted directors and employee of the small and medium trading enterprises in Nairobi County with over 320 directors and employees working in different sectors within the cosmopolitans of Nairobi County towns The quantitative data generated was analysed by use of descriptive statistics feature in SPSS to generate information which was presented using tables, charts, frequency distribution table and percentages and inferential statistics to make predictions or inferences about the population from observations and analyses of sample. The regression model was used to show the relationship between the dependent variable and the independent variables.

4.0 RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

The study sought to determine the influence of inventory techniques and performance of Micro and Small Trading Enterprises in Nairobi County Kenya. The data was gathered exclusively from

questionnaire as the research instrument designed in line with the objectives of the study.

4.2 Response Rate

The study targeted a sample of 178 managers and senior employees of Micro & Small trading enterprises in Nairobi County Out of the 178 distributed questionnaires, 148 were filled and returned. This translated to a response rate of 83.14%. Mugenda & Mugenda (2012) observed that a response rate of 50%, 60% or 70% of the response rate is sufficient for a study.

Table 4.1 Response Rate

Category	Frequency	Percentage
Questionnaires Distributed	178	100
Questionnaires Completed	148	83.14
Uncompleted Questionnaires	30	16.85

4.3 Demographic Findings

4.3.1 Gender of the Respondents

The respondents were requested to indicate their gender. From the findings in Figure 4.1, majority of Micro & Small trading enterprises in Nairobi County 55% were male while 45% were female. This implied that there were more male than female respondents involved in the study. The findings demonstrated that male respondents were more involved in the Micro & Small trading enterprises the findings agree with (Kaluarachchi, 2010) that male and female brains are dramatically different anatomically, chemically, hormonally, and physiologically when it comes to analyzing your survey results, responses based on gender can have a significant impact on the data.
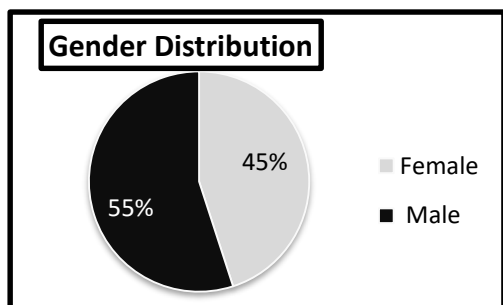

Figure 4.1: Gender of the Respondents

4.3.2 Age of the respondents

From the results presented in Table 4.2 show that, majority of the respondents were in 18 to 34 years' age bracket with 60.06%. With only 35.9% aged 35-44 years and 4.05% aged 45-54 years.

This shows that majority of entrepreneur's working in of Micro & Small trading enterprises in Nairobi County were middle age. Hence there for respondents provided had adequate reliable information regarding the influence of procurement management practices and performance of Micro & Small trading enterprises in Nairobi County. The findings agree with Kothari (2011) that using the filter tool when analyzing your data is an easy way to segment Age of the respondent's survey results in order to outline the similarities and differences between the two or more groups.

Table 4 2: Age of the respondents

Years	Frequency	Percent
18-24	63	42.5
25-34	26	17.5
35-44	53	35.9
45-54	6	4.05
Total	148	100.0

4.3.3 Work Experience in Micro & Small trading enterprises in Nairobi County

The respondents were requested to indicate the number of years they have been operating, Education level and Market the operate in Nairobi County as Micro & Small trading enterprises the finding is shown in Table 4.3. From the finding, 16.2% of the respondents had operated for less than a year, 26.4% for between 1- 5, 23.6% for between 5-10 years, and majority 33.7% for 15years and above. This is an indication that the respondent had been working long enough thus provided credible information in regard to the daily procurement management practices.

As observable form the Table 4.3, majority of the participants had a university diploma of form four certificate qualifications. These two categories had

a cumulative percentage of 71 %. Participants with a master's degree only accounted for 8.7% of the population. This implied that with half Micro & Small trading enterprises in Nairobi County of the population had college diploma and form four certificates Along with the educational background, they had the abilities within their career to focus on management of procurement management practices Functions competently.

The respondents were requested to indicate their respective market areas they are work in the in Nairobi County. The findings are shown in Table 4.3. From the finding, 40.5% of the respondents were trading in Gikomba Market, 23.6.% were in Wakulima Market, 17.6% were in Kariokor Market, 9.5 % Maasai Market and 8.8% Toy market.This shows that all the major Micro & Small trading markets in Nairobi County were well covered hence adequate statistical information to make conclusions was obtain from the respondents in this market on the reflection of the procurement management practices operations Yields higher completion rates the results agree with, Orodho (2012).. If you design a survey that people enjoy taking, it results in more completes and increases the likelihood they'll take another survey.

Table 4.3: Work Experience, Education level and Market

Work Experience	Frequency	Percent
Less than 1 years	24	16.2
1 – 5 years	39	26.4
5 – 10 years	35	23.6
15 years and above	50	33.7
Total	**148**	**100.0**
Education level	**Frequency**	**Percent**
Form four certificates	32	21.6
Diploma	73	49.4
Bachelor's degree	30	20.3
Master's degree	13	8.7
Total	148	100.0
Market	**Frequency**	**Percent**
Gikomba Market	60	40.5
Wakulima Market	35	23.6
Kariokor Market	26	17.6
Maasai Market	14	9.5
Toy market	13	8.8
Total	**148**	**100.00**

4.5 Descriptive Analysis

4.5.1 Inventory Techniques

Demand forecasting

The study sought on the extent to which respondents agreed on the given statements that relate to the influence of Demand forecasting and performance of Micro & Small trading enterprises in Nairobi County Table 4.4 from the findings, majority of the respondents strongly agreed that Demand drives the entire supply chain from suppliers to manufacturing, marketing, inventory, distribution and service to customers with a mean score of 4.22 and standard deviation of 1.04 .the finding further indicated that respondent agreed strongly on Demand planning as the management process within an SMEs which enables that SMEs to tailor its capacity, either production or service, to meet variations in demand or alternatively to manage the level of demand using marketing by mean of 4.24 and standard deviation of 1.04.the respondents agreed that Demand planning, which forms part of an overall management strategy and affects many individuals and functions within an SMEs operations which was supported by a mean score of 4.07 and 0.94 standard deviation.

The results agreed with Mutuerandu & Iravo (2014), that understanding and predicting customer demand is vital to manufacturers and distributors to avoid stock-outs and maintain adequate inventory levels. While forecasts are never perfect, they are necessary to prepare for actual demand. In order to maintain an optimized inventory and effective supply chain, accurate demand forecasts are imperative.

Table 4.4: Demand forecasting

Statement	Min	Max	Mean	SD
Demand planning, which forms part of an overall management strategy and affects many individuals and functions within an organisation,	1.00	4.00	4.07	0.94
Demand planning is the management process within an organisation which enables that organisation to tailor its capacity, either production or service, to meet variations in demand or alternatively to manage the level of demand using marketing	1.00	5.00	4.24	0.98
Demand drives the entire supply chain from suppliers to manufacturing, marketing, inventory, distribution and service to customers.	1.00	4.00	4.22	1.04

Economic order quantities

The respondents were required to indicate to which Economic order quantities affect the

Performance of Micro & Small trading enterprises in Nairobi County. A scale of 1 to 5 Where 5=Strongly Agree, 4=Agree, 3= 3-Neutral, 2= Disagree, 1= strongly. The finding is shown in Table 4.8. 53.38% of the respondents agreed that The firm using ICT determine the optimal number of units to order so that SMEs minimize the total cost associated with the purchase, delivery and storage of the product only 1.35% of the respondent's strongly disagreed and 4.73%of the respondent's disagreed with the statement. The findings indicated that SMEs using VMI arrangements with the supplier on deciding the timing and quantity of materials delivered to the retailer using advanced online messaging and data-retrieval systems influenced their performance level 40.54% of the respondents agreed while 37.16% of the respondents strongly agreed only 1.35% of the respondents strongly disagreed.

The respondents strongly indicated that the EOQ formula when modified to determine different production levels or order interval lengths, and corporations with large supply chains and high variable costs use an algorithm in computer had impact on SMES operations effectiveness with 37.16% of the respondents   agreed 44.59% of the

respondents strongly agreed and only 0.68% of the respondents strongly disagreed. The results agreed with Sezhiyan & Nambirajan (2010) that the demand plans and schedule of the entire business., by connecting origination order and purchasing system with that of your suppliers, where orders are automatically be placed and tracked and the supplier automatically issue an invoice

Table 4.5: Economic order quantities

Statement	1	2	3	4	5
VMI arrangements with the supplier decides the timing and quantity of materials delivered to the retailer using advanced online messaging and data-retrieval systems	1.35 %	3.38 %	17.57 %	40.54 %	37.16 %
The firm use ICT determine the optimal number of units to order so that we minimize the total cost associated with the purchase, delivery and storage of the product.	1.35 %	4.73 %	12.84 %	53.38 %	27.70 %
The EOQ formula can be modified to determine different production levels or order interval lengths, and corporations with large supply chains and high variable costs use an algorithm in computer	0.68 %	6.76 %	10.81 %	37.16 %	44.59 %

4.5.2 Performance management

The study sought the extent to which indicators of level of performance experienced by Micro & Small trading enterprises in Nairobi County. In the last five years in terms of Annual cost of goods sold, Value of goods sold and items, Average lead time in days and Revenue growth, that is related to Supplier Management, Inventory Techniques, quality approach and Distribution Managementby taking year 2013 as the base year. The implementation of procurement management practices was found to contribute to performance of Micro & Small trading enterprises. On achievement of operating Cost reduction, a 5 – point likert scale was adopted. The level of operating Cost reduction in Micro & Small trading enterprises in the year 2013 was at 30.50 %, in the year 2014 it was 20.17%, in year 2015 it was 15.10% respectively. In the year 2016, customer satisfaction level was at 5.73 %while in the year 2017 the customer

satisfaction level was at 3.82. % this implies that implementation of procurement management practices was found to contribute a moderate extent cost reduction hence influencing performance. According to Day& Moeller (2010). Reducing inventory reduces costs, although some instances, inventory is necessary in order to respond rapidly to customer demand, while new stocks are being delivered.

The results indicated that Micro & Small trading enterprises registered an decrease in in time taken to make deliveries within their clientele base in Nairobi county due to implementation of the procurement management practices from Average lead time in days of 15-10   in 2013, 10-12 in 2014   10-8   in 2015 and further reduced to 8-4 in 2016   and finally 4-1 in 2017. This implied that implementation of procurement management practices was found contributed to performance Micro & Small trading enterprises in Nairobi County.

The results indicated Micro & Small trading enterprises in Nairobi County registered an increase in profitability level due to implementation of procurement management practices systems from 9.01% in 2013, 10.0% in 2014, 12.55% in 2015, and 14.36% in 2016 to 18.78% in 2017 respectively. This implied that implementation of warehousing management systems contributed to performance of manufacturing firms. Incorporating Supply chain management spans in many functions and processes, including demand planning, excellence in supply chain management –especially in logistics functions –is about driving revenue growth, capturing market share, and enhancing customer satisfaction and loyalty (Johnston& Cheng 2012).

Table 4.6: Performance Management

Statements	2013	2014	2015	2016	2017
Cost reduction	30.50 %,	20.17%,	15.10%	5.73 %	3.82.%
Average lead time in days	15-10	10-12	10-8	8-4	4-1
Revenue growth (%)	9.01%	10.0%	12.55%	14.36%	18.78%

4.6 Inferential Analysis

4.6.1 Correlation analysis

The study undertook correlation matrix analysis to examine the association between procurement management practices and performance of Micro & Small trading enterprises in Nairobi County Table 4.14 presents the correlation matrix analysis on influences of procurement management practices and performance. The correlation factor ranged from -1≤ 0   ≥1. The acceptance confidence level was 95% or significance level of 0.05. The study conducted a Pearson Moment Correlation analysis which is represented by r. for all the study variables to establish the association Supplier Management, Inventory Techniques, Quality Approach, Distribution Management and the Dependent Variable Supply Chain Performance of Micro & Small trading enterprises in Nairobi County.There was a strong   positive correlation (r=0.886) between Supplier Management and the Supply Chain Performance The correlation was statistically significant P=0.000<0.05 at 95% confidence level. The study found that there existed a strong correlation between Inventory Techniques and Supply Chain Performance (r=0.865), The correlation was statistically significant P=0.000<0.05 at 95% confidence level.

The strength of association between Quality Approach and the Supply Chain Performance was strong and positive (r=0.915). The correlation was statistically significant P=0.000<0.05 at 95% confidence level. The study found that there existed a strong correlation between Distribution Management and the Supply Chain Performance (r=0.883.), the correlation was statistically

significant P=0.000<0.05 at 95% confidence level. This implies that there exists a positive correlation between the effects of procurement management practices and performance of Micro & Small trading enterprises in Nairobi. All the independent variables are positively related since their p-values are less than 0.05.

4.6.1 Regression Analysis model

The study conducted regression analysis to determine influence of Inventory Techniques practices and performance of Micro & Small trading enterprises in Nairobi County the study results are shown in the subsequent sections. In table 4.7 below, the R Square, which is the coefficient of determination, was used to measure the independent variables variations and their effect on the dependent variable. As observed, The R Square value is 0.840; this value is between 0 and 1. Analytically, this shows that 84.0% of variations in the dependent variable that can be explained by the independent variables hence 84.0% of the variation in Micro & Small trading enterprises performance is explained by Justin Time, Economic Order Quantities, Demand forecasting, while the remaining 16% is associated with factors that are not within the scope of this study.

Table 4.7: Regression Analysis model

Model	R	R Square	Adjusted R Square	Std. Error
1	.917[a]	.840	.837	.557

a. **Predictors**: (Constant), Justin Time, Economic Order Quantities, Demand forecasting

b. **Dependent Variable**: Inventory Techniques

4.6.2 Beta coefficients

From the regression findings, the regression equation becomes:

Y = 0.706+0.014X1+0.145X2 + 0.779 X3 +e

From regression results in Table 4.5, the 0.706 represented the constant which predicted value of Performance in Micro & Small trading enterprises

in Nairobi County when all the Inventory Techniques effects remain constant at zero (0). This implied that Micro & Small trading enterprises in Nairobi County operational effectiveness would be at 0.706 holding Justin Time, Economic Order Quantities and Demand forecasting at zero (0).

Regression results revealed that Demand forecasting has significant influence on Performance in Micro & Small trading enterprises in Nairobi County by $\beta1=0.014$, p=0.002<0.05, t= 1.108 the implication is that a unit increase in Demand forecasting leads to an increase in Performance in Micro & Small trading enterprises as indicated by $\beta1=0.014$

Regression results revealed that Economic Order Quantities has significant influence on Supply Chain Performance in Micro & Small trading enterprises in Nairobi County by $\beta2=0.145$, p=0.001<0.05, t= 1.423 the implication is that a unit increase in Economic Order Quantities leads to an increase in Supply Chain Performance in Micro & Small trading enterprises as indicated by $\beta2=0.145$.

Regression results revealed that Justin Time has significant influence on Supply Chain Performance in Micro & Small trading enterprises in Nairobi County by $\beta3=0.779$, p=0.000<0.05, t= 6.626 the implication is that a unit increase in Justin Time leads to an increase in Supply Chain Performance in Micro & Small trading enterprises as indicated by $\beta3=0.779$.

Table 4.8 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.706	.134		5.279	.000
	Demand forecasting	.014	.130	.015	1.108	.002
	Economic Order Quantities	.145	.102	.150	1.423	.001
	Justin Time	.779	.118	.762	6.626	.000

a. **Predictors**: (Constant), Justin Time, Economic Order Quantities, Demand forecasting

b. **Dependent Variable**: Inventory Techniques

$$Y = 0.706+0.014X_1+0.145X_2 + 0.779 X_3 +e$$

Where:

Y= performance

β0=Constant of Regression

X1= Demand forecasting

X2= Order Quantities

X3 = Justin Time

ε = Error of Regression

5.0 SUMMARY OF RESULTS, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter describes the summary of the study, conclusions, and recommendations of the study. The main purpose of the study was to determine the influence of inventory techniques and performance of Micro & Small trading enterprises in Nairobi County

5.2 Inventory Techniques

From the findings, effective inventory management lead to low storage costs, which in turn lead to an increase in the company's profits if inventory well managed helps to reduce the amount of goods to store, thus requiring less space, which will in turn lead to low warehouse rental costs. The inventory management approach of accurate response is an excellent mechanism that helps Micro & Small trading enterprises manages their inventory, which may get overloaded due to improper forecasts. Businesses greatly manage their inventory on the basis of future demand predictions. It has become increasingly important for these forecasts to be accurate for a business to keep itself alive in the cutthroat competition. Since more and more companies have come up with sophisticated inventory management systems that give accurate forecasts on product demands, the need for accurate response is highly needed.

5.3 Conclusions

The study concludes that Inventory Techniques to ensure SMEs stock levels remain accurate and there is sufficient stock available to meet its own needs and those of consumers. Key focus should place on this activity to ensure stocks are not too high, to minimize waste and to optimize the overall cost of the holding stock. Having too high or too low a stock can be harmful; too high a stock level represent money tied up and can impact on cash flow whereas too low stocks could result in not being able to satisfy order demand.

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