DYNAMIC PROCUREMENT PRACTICES AND SUPPLY CHAIN PERFORMANCE OF SUPERMARKETS IN NAIROBI, KENYA

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A Research Project Presented to the School of Business for partial fulfillment of the requirement for the award of the Degree of Master of Business Administration, University of Nairobi

OCTOBER, 2014
DECLARATION

I declare that this research project is my original work and has not been submitted or published or presented in any academic institution for any academic awards

Signature………………………………                    Date…………………………..

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D61/79057/2012

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

Signature …………………………… Date…………………………

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DEDICATION

I dedicate this work to my father Mr Bartholomew Rotich Kendagor and mother Easter Rotich, who their love for education as seen me come this far, my wife Sharon Kibet, Son Kipkalya and other family members
ACKNOWLEDGEMENT

This research study would not have been possible without the help of several individuals who in one way or another contributed and extended their valuable assistance in preparation of this project.

First and foremost my utmost gratitude goes to my supervisor and moderator Dr Magutu and Mr Michael Chirchir who did a lot to ensure that I produced quality work through their advice, guidance and encouragement, be blessed always, Mr Nyamwange lecturer department of management science who made me appreciate the value of operations and supply chain management. Lastly to all MBA lecturers school of business University of Nairobi.
ABSTRACT

This study sought to determine the dynamic procurement practices and supply chain performance of supermarkets in Nairobi, Kenya. The study was guided by the following objectives; to determine the dynamic procurement practices used by supermarkets in Nairobi, Kenya, and to establish the relationship between dynamic procurement practice and supply chain performance of supermarkets in Nairobi, Kenya. The study adopted a descriptive survey research design and the target population for the study was all supermarkets in Nairobi, Kenya. The research used questioner to gather information and the findings reveal to a great extent that; the supermarket has built long term relationship aimed at improving supply chain performance and has built long term relationship between its suppliers to improve its strategic and operational capacity and to enhance its value addition. The supermarkets have become more competitive, flexible and efficient with regard to procurement practices. The findings reveals that there has been growth in customer satisfaction and retention, improved quality, increased productivity, organization effectiveness, and improved customer's quality of life for the years 2009-2013. The study concludes that Strategic Supplier Partnership and Information technology adoption influence supply chain performance of supermarkets in Nairobi Kenya while collaboration, agile procurement, lean and information technology adoption dynamic procurement practices negates supply chain performance of supermarkets in Nairobi Kenya as they have negative coefficients. The study recommends that the supermarkets should address the challenges they face while engaging in supply chain performance which will enhance efficient procurement practices that will in turn boost supply chain performance further boosting the firms overall performance.
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<table>
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<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>EDI</td>
<td>Electronic data interchange</td>
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<tr>
<td>KPI</td>
<td>Key performance indicators</td>
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<td>P-BSC</td>
<td>Procurement-Balanced Scorecard</td>
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<td>SCM</td>
<td>Supply Chain Management</td>
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<td>SC</td>
<td>Supply Chain</td>
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<td>VMI</td>
<td>Vendor Managed Inventory</td>
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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Continuous improvement of procurement practices is one of the best enabler of organizations performances. A great deal of interest in dynamic growth of procurement practices is motivated by need of greater organization performance. For many years, the nature of competition has changed to the extent that organizations now compete against other companies based on the best service delivery and quality, a complete deviation from traditional practice exercised in the 80s (Gattorna, 2010). However, the new source of business competition lies outside the walls of an organization, and is determined by how effectively they transform from common traditional to best practice (Petrovic-Lazarevic et al, 2007). Being able to create business relationships with customers, suppliers and other strategic partners anchored on trust and long term commitment then becomes a crucial competitive parameter (Mattson 2002).

Supply chain management is very important as it increases a firm’s performance, delivery, financial performance and customer satisfaction. According to Simchi-Levi et al., (2008), Supply chain involves working closely with and in an integrated manner with suppliers, manufacturers, distributors and retailers so as to ensure that products are produced and distributed in the right quantities, to the right location and at the right time. The ultimate goal is reducing cost across the network as well as satisfaction of customer. The critical processes of supply chain include product design stage, production and delivery stages. The process includes managing supplier-customer relationships. Procurement and supply chain can therefore be a driver for results, corporate success and performance improvement (Quesada et al, 2012).

Previous studies suggest that effective SCM practices have a direct impact on the overall financial and marketing performance of an organization (Shin et al, 2000). Indeed SCM practices are expected to increase an organization’s market share, return on investment and improve overall competitive positions. For instance, (Tan et al, 1998) asserted that customer relations and purchasing practices impact the effectiveness of SCM strategy and lead to financial and market performance. Froehlich and Westbrook (2001) on the other hand suggested that companies with
broader supply chain integrations with suppliers and customers showed the largest performance improvement in business achievements.

The supermarkets in Kenya are increasingly spreading quickly in urban areas and are increasingly modernizing their procurement systems and practices with high annual growth rate (Neven and Reardon, 2004), this can be attributed to such factors has urbanization, growing middle class and its changing lifestyles. Supermarkets industry in Kenya dates back to 1960 when Uchumi had its first store Neven and Reardon (2005) and spearheaded the hypermarket concept in Kenya in the same 1960s

1.1.1 Dynamic Procurement Practices
Dynamic procurement practices are practices that are strategic, innovative and responsive and that can influence outcomes and drive improvements across the whole supply chain, and it involves methods dedicated to improve performance. They try to respond to certain needs that arise from change in environment. It is about coming up with innovation and alternatives for better performance and focuses much on change, development and transformation. Dynamic procurement practices are able to innovate and change its practices to achieve changes in product, process, or service that either reduce cost or improve efficiency and to achieve customer satisfaction (Gattorna, 2010).

Advance capacity purchase by buyers is an increasingly becoming a common practice in supply chain management that effectively accommodates and manages production in the presence of demand uncertainty (Kawamoto, 2005). However other practices can be regarded traditional procurement practices, Doyle (2013) asserted that it tend to be lengthy, bureaucratically driven, focused upon detail and very difficult for purchasers and providers to navigate. It is normally more focused on the control process rather than the outcome achieved.

Dynamic Procurement practices in both private and public organizations play a key role in modern economies as they ensure reduction of wasteful activities. Achieving such efficiency is an ambitious task, as procurement faces numerous challenges,
especially due to the market structure, the legal framework, and the political environment that procurers face (Thai, 2004).

These practices provide suppliers the opportunity to streamline their operations and effectively manage their capacity. For buyers, delayed purchase decreases overage risk. Dynamic procurement practice is increasingly becoming a common practice, allowing supply chain partners to share demand information instantaneously and hence to eliminate information discrepancies among supply chain partners Erhun and Keskinocak (2007).

Procurement management is highly linked to development of businesses and performance of supply chain of businesses. This is due to new procurement outlook which involves serving customers around the world, and companies ability to source and supply from global markets. Because of the responsibility of supply chain, procurement has been portrayed as an important element in realizing the new and innovative ideas in supply chain management. The innovative practices have made the end-customer more satisfied and the businesses in the supply chain network more successful through continuous use and adoption of best practices that are dynamic. (Monczka et al, 2006, Christopher et al, 2006, Mentzer et al, 2001, Brundin et al 2005, Chen & Paulraj, 2004).

1.1.2 Supply Chain Performance
Performance refers to a degree of accomplishing a task that make up a specific job. It reflects the degree to which a job requirement is met and is normally measured in terms of results. Its main focus meeting the goals that are market oriented as well as its financial goals. The short-term objectives of SCM are to increase productivity and reduce inventory and cycle time, and long-term objectives are to increase market share and profits for all members of the supply chain (Yamin et al, 1999). Financial measurement metrics is important in organizations comparisons and evaluating an organization’s behavior over time.

1.1.3 Supply Chain Performance Measurements
The performance measures metrics are resource, output and flexibility based. Resource focuses on high level of efficiency, while output focuses on high level of
customers and customer retention, and flexibility focuses on response to changing environment. Performance measures should provide the organization an overview of how they and their supply chain are sustainable and competitive (Beamon, 1999). Key performance indicators (KPIs) need to be selected in an effort to measure the performance of each supply chain, and which are the quantifiable aspects that measure the performance of a system and in major operations and which ensure that firms’ supply chain performance is able to meet their requirements at the lowest possible cost. KPIs lead to the identification of possible best practice which is used for improvement and for comparative purposes (Gunasekaran, 2001, Banomyong et al, 2011).

Performance measurement is important to organizations since it supports better decision making by making performance and results visible by providing a track of record of purchasing and supply chain performance over time and directly support better communication and provision of performance feedback, it is also crucial in identification of customer and ensuring that customer needs are met, promotes continuous improvement, helps in better understanding of processes by identifying bottlenecks, waste, problems and improvement opportunities.(Handfield et al,2009,Wouters, 2009, Kobu, 2007).

1.1.4 Supermarkets in Nairobi Kenya
A supermarket is a large retail store on a self-service basis, selling groceries and various products. Supermarkets today stock all sorts of goods needed in a house. They have recently gone as far as selling cooked food in the chain stores in Kenya. Most supermarkets have their headquarters in Nairobi. With the ever increasing population in Nairobi city, there are more supermarkets found within the CBD as compared to outskirts and residential estates place in Nairobi, Kenya.

All the supermarkets identified in this case works with almost the same philosophy which is customer satisfaction and relationship as well as good working relationship with its suppliers. Retailers face a number of challenges being an increasing pressure of customers’ requirements in product customization, attempt to ensure that the right products get to the right place for the lowest cost, engaging in collaborative efforts with their suppliers, educating the organization on supply chain fundamentals, quality
improvement, and demand responsiveness as well as need to reduce production cost, shorten lead time, and lower inventory level to ensure profitability (Holweg, 2006). Other challenges in retail industry and which are specific to supermarkets in Kenya are working for long hours, delivery time lines, transportation and Logistical challenges, financial challenges; Physical challenges in terms of location and Information Technology penetration (Magutu et al, 2011)

1.2 Statement of the Problem
Dynamic procurement practices and supply chain performance of firms around the globe remains a major debate that has not been solved for many years. Dynamic explosion of technology, inventions, the shifting demands of consumers, and the new structures of markets has brought a great challenge to many firms. The purchasing agent of today is a complex specialist, a technologist, and above all, a skilled and competent manager. He must understand the complexity and change which surrounds his task (Fleming, 1967). This therefore calls for a shift from the traditional procurement practices to dynamic procurement practices.

Leading companies have always used superior procurement practices to improve their performance. Good procurement practices can enable an organization to achieve efficiency in supply chain (Kevin, 2002). This therefore calls for the need to study the dynamic aspect of procurement practices for better performance of organizations.

Dynamic procurement practices has not been effectively embraced in Kenya retail industry and this has made major supermarkets such as Nakumatt, Uchumi, Naivas and Tuskys to fail to achieve performance goals in terms of sales revenue realization, customer satisfaction, right time shelf availability and right time delivery (Benson, 2011). Supermarkets in Nairobi, Kenya are still struggling to effectively embrace the aspect dynamic procurement practice to achieve supply chain performance.

Many studies have been done which underline the complexity of procurement in several aspects such as Robinson et al (1967), Mogee & Bean (1976), and Novack & Simco (1991).( Novack & Simco,1991 ) claim that procurement processes are complex because they involve the completion of a series of activities, such as qualifying new suppliers, procuring different types of inputs, and monitoring supplier performance, that cut across both functional boundaries and organizational
boundaries. Most of these empirical studies indicate that procurement to some extent is moving towards a more important and strategic part of the company and is continuously improving (Carter, et al 2007, Kocabasoglu & Suresh, 2006, Johnson & Leenders, 2004).

Nonetheless, although, Cousins & Spekman (2003) found in their study that there is a development of competences and professionalism in procurement organizations, they also found that it is a slow process with a number of internal barriers, including the mind-set of procurement itself. Holm (2012) study on dynamic procurement management asserts that procurement should not be looked from clerical point of view but should take a new strategic management practices for organizations efficiency, effectiveness and better performance, Colby and Marguarett (2005) in their study, concluded that the retail industry has a large scope that could never be covered by a single thesis and they suggested a further study on dynamic aspect of procurement practices. There is reason to believe that there is a misrepresentation between what procurement are expected to do from the conventional wisdom and what it actually does in its practice (Ramsay, 2004, & Croom 2008).

In Kenya few studies have been done on aspect of dynamic procurement practices, Kazi (2012) did a study on supply chain management practices and performance of a public health institution specifically medical supplies agency in Kenya, and he found out that effective supply chain management impact positively on operational performance and competitive priorities of the firm. Abdi (2012) did a study on procurement practices in Kenya public corporations; however his study focused much on procurement practices in relation to risk management in State Corporation leaving a gap on dynamic aspect of the procurement practices. He suggested a further research on procurement best practices and in other setting which this study sought to fill by focusing on the dynamic aspect of the procurement practices and in both private and public setting and by focusing on supermarkets in Nairobi Kenya.

The research question reflects this focus by addressing the following questions; what are the dynamic procurement practices used by supermarkets in Nairobi? And what is the relationship between dynamic procurement practice and supply chain performance of leading supermarkets in Nairobi, Kenya?
1.3 Objectives of the Study

The objectives of this study are:

i) To determine the dynamic procurement practices used by supermarkets in Nairobi, Kenya, and

ii) To establish the relationship between dynamic procurement practice and supply chain performance of supermarkets in Nairobi, Kenya.

1.4 Value of the Study

The study is of value to the management of supermarkets in Kenya because they will be able to understand the benefits which dynamic procurement practices have on their performance and in making informed decisions on issues of procurement and supply chain. This will form a basis through which supermarkets will improve customer relation which will relate to customer loyalty and thus increase in sales.

This study will also be very helpful to students and those interested in studying supply chain management and related studies and the most important of this study is aimed to giving knowledge and practical lessons on how to improve performance in supermarkets and retail industry at large.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction
This chapter is concerned with the review of literature related to the study. An overview of the concept of dynamic procurement practices, dynamic procurement practices and performance of leading supermarkets in Kenya.

2.2 Dynamic procurement practices
Procurement practices involve a set of activities undertaken in an organization to promote effective management of organizations supply chain (Koh et al, (2007), Li et al, 2005) defined procurement management practices as the set of activities that organizations undertake to promote effective management of supply chain. They are special form of strategic partnership between retailers and suppliers (Otto & kotzab, 2003). A number of these concepts came into being between 2000 and 2009 to meet the requirements for speed, agility, responsiveness and flexibility (Yusuf et al, 2004, Gunasekaran et al, 2008).

A supply chain practice appears to have changed and it’s a word with fewest connotations to deal with, and it continues to change overtime and the change is so dynamic. However the dynamic aspect of procurement practice has not been captured and addressed satisfactory (Cousins et al, 2008). Purchasing and procurement have been used concurrently, and to address the issue of dynamic procurement practice aimed at achieving best procurement management and better organizations performance, there is no differentiate between purchasing and procurement Monczka et al (2010)

Procurement is a functional group and at the same times a functional activity which performs many activities with ultimate goal to ensure value to the organization. Such value adding activities are supplier identification and selection, buying, negotiation and contracting, supply market research, supplier measurement and improvement, and purchasing systems development. procurement management extends its activities to include strategic sourcing which many researchers have identified to include cross-functional process which concerns and covers a wider scope that including
engineering, quality, design, manufacturing, accounting, strategic planning (Monczka et al. 2010).

(Tan et al, 1999) linked procurement practices with firm performance, they examined effects of strategic supplier partnership, customer relationships and they found out that all were positively related to firm’s performance. (Bowersox & Closs, 1996) concluded that for companies to be fully effective in current’s competitive business environment, they must develop a behavior that incorporated customers and suppliers. This study mainly focuses on dynamic procurement practices and they are strategic supplier partnership, collaboration in Supply Chains, agile supply chains, lean supply chains, adoption of information communication Technology and continuous replenishment (VMI)

2.2.1 Strategic Supplier Partnership Dynamic Practice
Strategic supplier partnership is the long term relationship between the organization and its suppliers which influences the strategic and operational capabilities of individual participating companies to help them achieve important and significant ongoing benefits (Li et al, 2005, Li et al., 2006, A strategic supplier partnership includes buying goods and services from suppliers and impacting the suppliers system and operational capabilities, adding value and improving the supply chain performance (Monczka et al, 1998, Sufian, 2010). A strategic partnership emphasizes direct, long-term association and encourages mutual planning and problem solving efforts (Gunasekaran A, Patel C, Tirtiroglu, 2001). The need to be competitive, flexible and efficient has forced companies to enter into collaborative relationships with suppliers and customers thus need for strategic supplier dynamic practice (Cousins, 1999, Hines, Lammings et al, 2000; Carr & Smeltzer, 1999).

In order to cope with uncertainties in supply markets, companies are to change the outlook from procurement to supply management. The strategic supplier practice is not a new argumentation, however, it is taking a new direction of dynamic aspect of strategic supplier partnership (Li et al, 2006). Lewis (1946) argues that top management did not recognize and understand the importance of procurement as a major function. Ammer (1961) claimed that one of the problems procurement faced
in order to change to a strategic position was that top management did not know much about procurement and how it could contribute to company success.

Strategic partnerships with suppliers enable organizations to work more effectively with suppliers. This relationship works out to ensure the success of the products and the major concern is the connectivity between the firm and its suppliers which entails exchange of information on demand and as per inventory levels. Also it ensures working relationships with other firms which contribute towards customer high satisfaction. Quick response procurement practice enables suppliers to focus on what retailers are going to order before the order is actually made, this is through incorporation of (EDI) that makes it possible for information sharing through use of information technology. Example of such service is electronic data interchange (EDI) point of sale which allows supplier to know the actual consumer demand pattern of fast moving goods that in turn enables the supplier to prepare for the next order before the retailer makes the order. This is made possible through electronic connection. The practice of suppliers participating early in the product-design process offers more cost effective design choices, help best component selection, design assessment and alignment of organizations to work closely The benefit of the practice is elimination of wasteful time and effort which promotes cooperation, openness of communication and a problem-sharing attitude (Balsmeier et al, 2012).

2.2.2 Collaboration Procurement Dynamic Procurement Practice
Collaboration is a value adding resource for firms that are intending to lower their operating cost, increase their agility and eliminate unnecessary waste as well as to satisfy their clients (Spekman et al, 1994). Collaborative relationships ensures smooth flow of information which translate to the lowering of operational expenses and costs as well as ensuring that partners are proactively adjusting to their operations to the market changes and trends thus leading to mitigation of losses and increase supply chain agility. Collaborative partnerships between suppliers and manufacturers have a significant impact on supply chain performance (Simchi et al, 2002)

Collaboration and interaction between business partners who come together to share information through information exchange results to a win-win situation, and normally works towards achievement of cost savings, reduced lead time and
flexibility, thus achievement of supply chain management performance (Gunasekarani & Ngai, 2004). As the speed of businesses continuous to increases, pressure placed on systems and processes has also increased thus need for integration, need for faster processes and better visibility which translate to getting better information faster. The necessitating factor for speed and business relationship improvement is integration and collaboration practice that works to solve information problem through network formation of various trading business partner. Collaboration practice is important in elimination of costly delays due to systems handoffs, increased access to timely information for decision making and real time alert (Bryan Ball, 2014).

2.2.3 Agile Procurement Dynamic Practice

Agility is the ability of an organization to respond rapidly to unanticipated changes in demand, both in terms of volume and variety (Sheffi, 2004). The supply chain agility focus came into being in the year 2001 with the core objectives to respond quickly to short-term changes in demand and supply and also to solve the problem of external disruptions smoothly (Lee, 2004). Agile procurement dynamic practice is of great importance in cases of demand forecasting and inventory accuracy aspects. This is due to inventory reliance on certain volume levels for profit achievement which is achieved through all time shelf availability. Without accurate demand sensing and accurate view of total inventory, the practice of putting the right product at the right place and right time will be difficult and impossible (Bob Heaney et al, 2012).

A firm is agile if its supply chain process is able to capture the aspect of market sensitivity that is when supply chain is able to read and respond to real demand. The practice often encourages high level of shared information. A key characteristic of an agile organization is flexibility. This involves flexibility in terms of product, volume and delivery flexibility. An agile dynamic procurement practice enables a firm to quickly respond to expected changes and works towards fulfilling demand, manufacturing personalized products, and providing excellent customer service. The practice entails integrating the supply chain’s alertness to changes both internal and environmental with respect to supply chain’s capability to use resources in responding to changes, all in a timely and flexible manner (Christopher et al, 2000).
Agility dynamic practice in retail industry is there to manage volatile demand due to mixture of different products and items stocked by such firms an example of supermarket. The practice enables a firm to respond in a timely and effective manner to market volatility and many other various uncertainties, therefore putting a firm in a position to establish a superior competitive position (Swafford et al, 2006). Dynamic procurement, supply chain agility, and performance outcomes are inextricably linked in many ways (Li et al, 2008). An agile SC profits by responding to rapidly changing business activities and continually fragmenting global markets by being dynamic and context specific, aggressively changing, and growth oriented and are driven by customer designed products and services (Vonderembse et al, 2006)

2.2.4 Lean Procurement Dynamic Practice

Lean procurement dynamic practice is a management philosophy that enhances customer value through waste elimination and continuous improvement in a system, by applying lean principles, practices and techniques. Lean procurement dynamic practice is aimed to achieve cost reduction, quality and efficiency improvement with less effort (Agus et al, 2012). The major benefits of lean procurement dynamic practice in the supply chain, includes reduced cost, improved quality, faster delivery and flexibility (Ugochukwu et al, 2012). The lean concept originated with Toyota and has helped companies achieve more with less human effort, less time and cost (Womack et al 1994). The lean procurement dynamic practice is a paradigm based on cost reduction and flexibility, focused on processes improvements, through the reduction or elimination of all wastes (Womack et al, 1991). Lean is an evolving concept and its growth is so dynamic with rapidly increasing popularity as a procurement management approach and within entire supply chain management (Hines et al, 2004). The lean procurement dynamic practice has embraces all the processes through the product life cycle, starting with the product design to the product selling and from the customer order to the delivery Anand & Kodali (2008).

The lean concept can be traced to Toyota Company with its focus on reduction and elimination of waste within the company production system (Ohno, 1988). (Abernathy, 2000) argued that that retailers that work based on lean, requires rapid replenishment of products, faster shipments need to meet strict requirements in terms
of the delivery times, order completeness and accuracy and which is made possible through lean procurement dynamic practice. The practice includes finding out what the customers desire in a product or service, identifying the value stream starting from activities on the suppliers side to the end customers and waste exposure, avoiding delay down times through organization of organizations’ systems, reduction or elimination of scraps, Provision to customer of exactly amount of what is required and just when its required, continuous improvement of system and always search for problems and solve them when identified. Lean procurement dynamic practice focuses mainly on integrated supply chain, effective communication and information sharing, effective demand management, end customer focus, continuous improvement, low inventories and few suppliers (Womack et al, 1996)

2.2.5 Information Technology Adoption Dynamic Practice

It adoption has changed how goods and services are purchased in the e-procurement. E-procurement is an online system that streamlines the procurement process. Good governance refers to the process and structure that ensures good management of resources (ADB, 2004). Good governance in public institutions and public sector management focuses on transparency and maximization of profit, people, and society consistently and majorly focuses on fairness. This includes clear principles, citizen participation, and rule of law, effectiveness, efficiency, equity and accountability.

Many studies with regard to e-procurement have focused on the system implementation and effectiveness of the e-procurement system. (Warsta, 2004) found that the most important corrupt interface between private companies and public offices is the public sector procurement. (Croom, 2000) he indicated that process efficiency is a key driver of e-procurement performance. A recent work by (Hui et al, 2011) highlighted the opaqueness and failure of public agencies to acquire the right quantity, specifications and price in the procurement process. Hackney et al. (2007) found that human factors are critical in the e-reverse auction. Padhi and Mohapatra (2011) suggested a statistical approach based on pattern analysis to detect collusion.

In 2011, regarding transparency issues, Thailand was rated 3.4 points on a scale of 0-10 and ranked 80th among 183 countries and ten in this case equates to a low level of corruption). According to this study, Thailand is perceived to have a high level of
corruption. Information technology adoption therefore is important in achievement of the major objectives of e-government procurement (E-GP) implementation which is to reduce corruption (Transparency International, 2006)

In a study on the adoption of e-Procurement, Kheng and Hawamdeh (2002) examine how e-procurement helps organizations to enhance their competitiveness and deal with challenges to its adoption. Evidence supports a general trend towards the adoption of e-procurement; where e-procurement is key mechanism to enhance the ability of firms to compete. E-Procurement is an enabler of supply chain integration and efficiency and at the same time provides significant cost saving. Through this effectiveness management is able to be created and greater profits are made as organization order process is faster.

2.2.6 Continuous Development Dynamic Practice
Vendor managed inventory (VMI), which is also known as continuous development or supplier-managed inventory, is one of the most widely discussed partnering initiatives for encouraging collaboration and information sharing among trading partners (Angulo, 2007). VMI was popularized in the late 1980s by Wal-Mart and Procter & Gamble and became one of the key programs in the grocery industry's pursuit of efficient consumer response and the garment industry's quick response (Waller, 2009).

It is an initiative where vendors are responsible for determining retail replenishment levels and managing the amount of inventory that retailer has on hand. By retailers participating in VMI, allows supplier knowledge on VMI which benefits retailers through automatic replenishment which in turn increase the customer service level due to increased supply chain flexibility to respond to customer demand and ensure all time on shelf availability. Some of the advantages of VMI implementation are: reduction in customer demand uncertainty; reduction of inventory level; reduction of stock out number and frequency; more flexibility in production planning and distribution; and improvement of customer services (Disney and Towill, 2008).

These benefits mainly derive from VMI are distortion of demand information (known as the bullwhip effect) transferred from downstream supply network members to upstream members is minimized, thus making it possible to reduce the stock out
situations and inventory costs, while at the same time increasing the service level (Cetinkaya & Lee, 2009).

2.3 Conceptual Framework
Mugenda and Mugenda (2003), define a conceptual framework as a hypothesized model identifying the concepts under study and their relationships. In this framework, there are certain factors that determine supply chain performance of supermarkets in Kenya. These factors include but are not limited to strategic supplier partnership, collaboration procurement, agile procurement, lean procurement, IT adoption and continuous development.

Fig 2.1 Conceptual Model
Source, Author (2014)
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction
This chapter will highlight a full description of research design, research variables and provide a broad view of the description and the selection of the population and sample. Data collection techniques, research instruments, and data analysis procedures will also be explained.

3.2 Research Design
A descriptive study is concerned with determining the frequency with which something occurs or the relationship between variables (Bryman & Bell, 2003). The approach is appropriate for this study, since the study intends to collect detailed information through descriptions and will be useful for identifying variables and hypothetical constructs. This method provided descriptions of the variables in order to answer the research questions. It was therefore an efficient way to use to obtain information needed to describe the attitudes, opinions and views of the respondents.

3.3 Target Population
The population for this study was all supermarkets in Nairobi, Kenya and they are 88. The population census was conducted of all 88 supermarkets. There was no need for sampling since the number of supermarkets is small. The respondents were all procurement officers in 88 supermarkets in Nairobi, Kenya. Mugenda and Mugenda (2003) explained that the target population should have observable characteristics to which the study intends to generalize the result of the study.

3.4 Data Collection
The study collected data using a questionnaire while secondary data was from available literature from scholars and data from companies past performance records. The study utilized a questionnaire used in various previous research projects (Lumpkin & Dess, 2001). The questionnaire designed in this study comprised of four sections. Part A contextual factors, Part B captured dynamic procurement practices and part, C captured the challenges of dynamic procurement practices and captured supply chain performance measures.
3.5 Data Analysis

The study used both quantitative and qualitative techniques to analyze data from the questionnaire. Quantitative and qualitative data were analyzed using descriptive statistics. The data was then coded and cross tabulated to enable the responses to be statistically analyzed using appropriate software program and the results were then presented in tabular format which enabled comparison of trend. The researchers then used descriptive statistics and integrate both the qualitative and quantitative techniques in the data analysis. Through the use of pie charts and graphs, the data was presented diagrammatically. This type of presentation is efficient in it enables easy understanding of information.

In Inferential statistics regression analysis were used to test the relationship between dynamic procurement practices and performance of supermarkets in Nairobi, Kenya. The findings were presented using tables, since tables were user friendly and showed response frequencies as well as percentages of the respondent’s opinions on supply chain performance of supermarkets. Qualitative data analysis method was applied to analyze the data gathered through questionnaires. A multiple regression model was used to determine the relative importance of each of the five variables in relation to the study which sought to understand the dynamic procurement practices and supply chain performance of supermarkets in Nairobi Kenya. The regression model was as follows:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 \]

Where:
- \( Y \) = supply chain performance of supermarkets in Nairobi Kenya.
- \( \beta_0 \) = Constant Term
- \( \beta_{1,2,3,4,5,6} \) = Beta coefficients
- \( X_1 \) = Strategic Supplier Partnership
- \( X_2 \) = Collaboration Procurement
- \( X_3 \) = Agile Procurement
- \( X_4 \) = Lean Procurement
- \( X_5 \) = Information technology Adoption
- \( X_6 \) = Continuous Development
CHAPTER FOUR
DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction
This chapter is presented in four sections that is part A, part B, part C and part D. Part A is the general information. The second section part b looks at the dynamic procurement practices; part c looks at challenges of dynamic procurement practices, while part d looks at supply chain performance measures. The data has been presented in tables and bar graphs. The responses were analyzed using descriptive statistics. Out of 88 questionnaires which had been administered to the interviewees, 83 of them were returned for data analysis. This translates to 94.3 percent return rate of the respondents. Overall, the response rate can be considered to have been very sufficient for the analysis

4.2 General Information
The study sought to find out the type of the organization. The findings are presented in the figure below:

| Table 4.1: Knowledge on dynamic procurement practices |
|-------------|-----------|-----------|
| (Duration)  | Frequency | Percent   |
| Yes         | 83        | 83.0      |
| No          | 0         | 0.0       |
| Total       | 83        | 100.0     |

Source: (2014)

The study sought to find out if the respondent has ever been involved in the implementation of dynamic procurement practices. The responses are shown on the figure below:
have you ever been involved in the implementation of dynamic procurement practices

Source: Author (2014)

**Figure 4.1: Involvement in the implementation of dynamic procurement practices**

Figure 4.1 above reveals that majority of the respondents (89.2%) indicated that they have been involved in the implementation of dynamic procurement practices while 10.8% indicated they have not.

The study sought to find out if as an organization they appreciate the role of dynamic procurement practices. The findings are presented in the figure below:
As an organization, do you appreciate the role of dynamic procurement practices

Source: Researcher (2014)

**Figure 4.2: As an organization, do you appreciate the role of dynamic procurement practices**

Figure 4.2 above reveals that almost all the respondents represented by 90.4% agreed that as an organization, they appreciate the role of dynamic procurement practices while 9.65 disagreed.

The study sought to find out if adoption of dynamic procurement practices influences the organization performance. The findings are presented in the figure below:
Source: Researcher (2014)

**Figure 4.3: Adoption of dynamic procurement practices influence the organization performance**

Figure 4.3 shows that almost all the respondents (91.6%) agreed that the adoption of dynamic procurement practices influence the organization performance while 8.45 disagreed.

### 4.3 Dynamic Procurement Practices

The study sought to find out the extent to which the respondent agrees with the following statements concerning the dynamic procurement practices. The findings are shown in the table below:
4.3.1 Strategic supplier partnership practices

Table 4.2: Extent of agreement with the following statements concerning Strategic supplier partnership practices

<table>
<thead>
<tr>
<th></th>
<th>Very great extent (%)</th>
<th>Great extent (%)</th>
<th>Moderate extent (%)</th>
<th>Small extent (%)</th>
<th>Very small extent (%)</th>
<th>Mean</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has built long term relationship between its suppliers to improve its strategic and operational capacity</td>
<td>41.0</td>
<td>59.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.59</td>
<td>0.49</td>
<td>2</td>
</tr>
<tr>
<td>The supermarket has built long term relationship with suppliers to enhance its value addition</td>
<td>44.6</td>
<td>55.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.55</td>
<td>0.50</td>
<td>3</td>
</tr>
<tr>
<td>The supermarket has built long term relationship aimed at improving supply chain performance</td>
<td>38.6</td>
<td>61.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.61</td>
<td>0.49</td>
<td>1</td>
</tr>
<tr>
<td>Strategic partnership has encouraged mutual planning and problem solving efforts.</td>
<td>55.4</td>
<td>44.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.45</td>
<td>0.50</td>
<td>6</td>
</tr>
<tr>
<td>The supermarkets has become more competitive, flexible and efficient</td>
<td>50.6</td>
<td>49.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.49</td>
<td>0.50</td>
<td>4</td>
</tr>
<tr>
<td>The supermarket has been able to exchange information on demand and proper management of inventory levels</td>
<td>54.2</td>
<td>45.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.49</td>
<td>0.50</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Author (2014)

The findings on Table 4.2 show that majority of the respondents to a great extent agreed to the following statements regarding strategic supplier partnership practices; the supermarket has built long term relationship aimed at improving supply chain performance (61.4%), the supermarket has built long term relationship between its suppliers to improve its strategic and operational capacity (59.0%), the supermarket has built long term relationship with suppliers to enhance its value addition (55.4%) and the supermarkets has become more competitive, flexible and efficient (49.4%). However a large proportion of the respondents agreed to a very great extent to the following statements regarding strategic supplier partnership practices; strategic partnership has encouraged mutual planning and problem solving efforts (55.4%), the
supermarket has been able to exchange information on demand and proper management of inventory levels (54.2%) and the supermarkets has become more competitive, flexible and efficient (50.6%).

4.3.2 Collaboration procurement practices

Table 4.3: Extent of agreement with the following statements concerning Collaboration procurement practices

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very great extent (%)</th>
<th>Great extent (%)</th>
<th>Moderate extent (%)</th>
<th>Small extent (%)</th>
<th>Very small extent (%)</th>
<th>Mean</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has experienced smooth flow of information and reduction of cost and operational expenses.</td>
<td>85.5</td>
<td>14.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.14</td>
<td>0.35</td>
<td>4</td>
</tr>
<tr>
<td>The supermarket has reduced lead time and achieved flexibility.</td>
<td>50.6</td>
<td>49.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.49</td>
<td>0.50</td>
<td>2</td>
</tr>
<tr>
<td>The supermarket has eliminated costly delays</td>
<td>8.4</td>
<td>91.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.92</td>
<td>0.28</td>
<td>1</td>
</tr>
<tr>
<td>The supermarket has increased access to timely information for decision making</td>
<td>50.6</td>
<td>49.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.49</td>
<td>0.50</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Author (2014)

The findings on Table 4.3 show that majority of the respondents to a great extent agreed to the following statements regarding collaboration procurement practices; the supermarket has eliminated costly delays (91.6%), the supermarket has reduced lead time and achieved flexibility (49.4%) and the supermarket has increased access to timely information for decision making (49.4%). However a large proportion of the respondents agreed to a very great extent to the following statements regarding collaboration procurement practices; the supermarket has experienced smooth flow of information and reduction of cost and operational expenses (85.5%), the supermarket has reduced lead time and achieved flexibility (50.6%) and the supermarket has increased access to timely information for decision making (50.6%).
### 4.3.3 Agile procurement practices

#### Table 4.4: Extent of agreement with the following statements concerning agile procurement practices

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very great extent (%)</th>
<th>Great extent (%)</th>
<th>Moderate extent (%)</th>
<th>Small extent (%)</th>
<th>Very small extent (%)</th>
<th>Mean</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agile procurement practice has enabled the supermarket to respond faster to change in demand</td>
<td>81.9</td>
<td>18.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.18</td>
<td>0.39</td>
<td>6</td>
</tr>
<tr>
<td>Agile procurement practice has enabled the supermarket handled external disruptions smoothly</td>
<td>50.6</td>
<td>49.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.49</td>
<td>0.50</td>
<td>3</td>
</tr>
<tr>
<td>Agile procurement practice has enabled the supermarket to respond to market volatility and uncertainties</td>
<td>43.4</td>
<td>56.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.57</td>
<td>0.50</td>
<td>1</td>
</tr>
<tr>
<td>Agile procurement practice has enabled the supermarket use fuel efficient vehicles to transport products</td>
<td>50.6</td>
<td>49.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.49</td>
<td>0.50</td>
<td>4</td>
</tr>
<tr>
<td>The supermarket has achieved all time shelf availability.</td>
<td>48.2</td>
<td>51.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.52</td>
<td>0.50</td>
<td>2</td>
</tr>
<tr>
<td>The Supermarket has built excellent customer service.</td>
<td>50.6</td>
<td>49.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.49</td>
<td>0.50</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Author (2014)

The findings on Table 4.4 show that majority of the respondents to a very great extent agreed to the following statements regarding agile procurement practices; agile procurement practice has enabled the supermarket to respond faster to change in demand (81.9%), agile procurement practice has enabled the supermarket handled external disruptions smoothly (50.6%), agile procurement practice has enabled the supermarket use fuel efficient vehicles to transport products (50.6%) and the supermarket has built excellent customer service (50.6%). However a large proportion of the respondents agreed to a great extent to the following statements regarding agile procurement practices; agile procurement practice has enabled the supermarket to
respond to market volatility and uncertainties (56.6%), the supermarket has achieved all time shelf availability (51.8%), agile procurement practice has enabled the supermarket handled external disruptions smoothly (49.4%), agile procurement practice has enabled the supermarket use fuel efficient vehicles to transport products (49.4%) and the supermarket has built excellent customer service (49.4%).

### 4.3.4 Lean procurement practices

#### Table 4.5: Extent of agreement with the following statements concerning Lean procurement practices

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very great extent (%)</th>
<th>Great extent (%)</th>
<th>Moderate extent (%)</th>
<th>Small extent (%)</th>
<th>Very small extent (%)</th>
<th>Mean</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has eliminated waste</td>
<td>88.0</td>
<td>12.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.12</td>
<td>0.33</td>
<td>4</td>
</tr>
<tr>
<td>The supermarket has improved quality</td>
<td>51.8</td>
<td>48.2</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.48</td>
<td>0.50</td>
<td>1</td>
</tr>
<tr>
<td>The supermarket has achieved faster delivery and flexibility</td>
<td>54.4</td>
<td>45.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.46</td>
<td>0.50</td>
<td>2</td>
</tr>
<tr>
<td>The supermarket has reduced cost.</td>
<td>88.0</td>
<td>12.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.12</td>
<td>0.33</td>
<td>5</td>
</tr>
<tr>
<td>The supermarket has responded to short term change in demand</td>
<td>86.7</td>
<td>13.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.13</td>
<td>0.34</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Researcher (2014)

The findings on Table 4.5 show that majority of the respondents to a very great extent agreed to the following statements regarding lean procurement practices; the supermarket has eliminated waste (88.0%), the supermarket has reduced cost (88.0%), the supermarket has responded to short term change in demand (86.7%), the supermarket has achieved faster delivery and flexibility (54.4%) and the supermarket has Improved quality (51.8%). However a large proportion of the respondents agreed to a great extent to the following statements regarding lean procurement practices; the supermarket has improved quality (48.2%) and the supermarket has achieved faster delivery and flexibility (45.8%).
4.3.5 Information technology Adoption

Table 4.6: Extent of agreement with the following statements concerning Information technology Adoption

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very great extent (%)</th>
<th>Great extent (%)</th>
<th>Moderate extent (%)</th>
<th>Small extent (%)</th>
<th>Very small extent (%)</th>
<th>Mean</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has been able to process orders faster</td>
<td>49.4</td>
<td>50.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.51</td>
<td>0.50</td>
<td>1</td>
</tr>
<tr>
<td>The information technology adoption has encouraged transparency in</td>
<td>96.4</td>
<td>3.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.04</td>
<td>0.19</td>
<td>3</td>
</tr>
<tr>
<td>procurement process.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The supermarket has been able to achieve a good competitiveness</td>
<td>51.8</td>
<td>48.2</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.48</td>
<td>0.50</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Author (2014)

The findings on Table 4.6 show that majority of the respondents to a very great extent agreed to the following statements regarding information technology adoption; the information technology adoption has encouraged transparency in procurement process (96.4%), the supermarket has been able to achieve a good competitiveness the supermarket has been able to achieve a good competitiveness (51.8%) and the supermarket has been able to process orders faster (49.4%). However a large proportion of the respondents agreed to a great extent to the following statement regarding information technology adoption; the supermarket has been able to process orders faster (50.6%) and the supermarket has been able to achieve a good competitiveness (48.2%).
4.3.6 Continuous replenishment

Table 4.7: Extent of agreement with the following statements concerning continuous replenishment

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very great extent (%)</th>
<th>Great extent (%)</th>
<th>Moderate extent (%)</th>
<th>Small extent (%)</th>
<th>Very small extent (%)</th>
<th>Mean</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has been able to develop efficient customer response</td>
<td>47.0</td>
<td>53.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.53</td>
<td>0.50</td>
<td>3</td>
</tr>
<tr>
<td>The supermarket has been able to reduced customer demand uncertainty</td>
<td>44.6</td>
<td>55.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.55</td>
<td>0.50</td>
<td>1</td>
</tr>
<tr>
<td>The supermarket has reduced inventory levels and stock out number</td>
<td>88.0</td>
<td>12.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.12</td>
<td>0.33</td>
<td>4</td>
</tr>
<tr>
<td>The supermarket has improved customer service</td>
<td>45.8</td>
<td>54.2</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.54</td>
<td>0.50</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Author (2014)

The findings on Table 4.7 show that majority of the respondents to a very great extent agreed to the following statements regarding continuous replenishment; the supermarket has reduced inventory levels and stock out number (88.0%), the supermarket has been able to develop efficient customer response (47.0%) and the supermarket has improved customer service (45.8%). However a large proportion of the respondents agreed to a great extent to the following statement regarding continuous replenishment; the supermarket has been able to reduced customer demand uncertainty (55.4%), the supermarket has improved customer service (54.2%) and the supermarket has been able to develop efficient customer response (53.0%).

4.4 Supply Chain Performance Measures

The study sought to find out the impact dynamic procurement practices have had on the supermarket performance for years 2009-2013. The findings are presented in the figure below:
Figure 4.4: Impact of Dynamic Procurement Practices

Figure 4.4 shows that all the respondents indicated that there has been growth in customer satisfaction and retention, improved quality, increased productivity, organization effectiveness, and improved customers’ quality of life for the years 2009-2013. Customer satisfaction and retention grew from 20% in 2009 to 79% in 2013. Improved quality grew from 30% in 2009 to 65% in 2013. Increased productivity grew from 40% in 2009 to 68% in 2013. Organization effectiveness grew from 40% in 2009 to 65% in 2013. Improved customers quality of life grew from 35% in 2009 to 68% in 2013.

4.5 Challenges of Dynamic Procurement Practices

The study sought to find out the extent to which the respondent agree with the challenges faced when adopting dynamic procurement practices in your supermarket. The findings are shown in the table below:
Table 4.8: The challenges faced when adopting dynamic procurement practices in the supermarket

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of appropriate technology</td>
<td>58</td>
<td>69.9%</td>
</tr>
<tr>
<td>Lack of awareness among the employees, retailers and suppliers</td>
<td>83</td>
<td>100.0%</td>
</tr>
<tr>
<td>Lack of appropriate tools and techniques for measuring performance</td>
<td>83</td>
<td>100.0%</td>
</tr>
<tr>
<td>Lack of commitment from the top management</td>
<td>4</td>
<td>4.8%</td>
</tr>
<tr>
<td>Lack of effective communication among the supply chain team</td>
<td>12</td>
<td>14.5%</td>
</tr>
</tbody>
</table>

Source: Author (2014)

Table 4.8 shows that majority of the respondents indicated that the challenges faced when adopting dynamic procurement practices in the supermarket are: Lack of awareness among the employees, retailers and suppliers (100.0%), Lack of appropriate tools and techniques for measuring performance (100.0%), Lack of appropriate technology (69.9%), Lack of effective communication among the supply chain team (14.5%), and Lack of commitment from the top management (4.8%).

4.6 Regression Analysis

A multiple linear regression model was applied to determine the relative effects of the dynamic procurement practices on supply chain performance of supermarkets in Nairobi Kenya. The regression model was as follows:

\[ y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 \]

Where:
- \( Y \) = supply chain performance of supermarkets in Nairobi Kenya.
- \( \beta_0 \) = Constant Term
- \( \beta_{1,2,3,4,5,6} \) = Beta coefficients
- \( X_1 \) = Strategic Supplier Partnership
\[ y = 1.132 + 0.056X_1 - 0.334X_2 - 0.131X_3 - 0.122X_4 + 0.639X_5 - 0.146X_6 \quad p=0.225 \]

From the above regression model on Table 4.9, when the Strategic Supplier Partnership, Collaboration Procurement, Agile Procurement, Lean Procurement, Information technology Adoption, and Continuous Development have null value; financial performance would be 1.132.

Holding other factors constant, a unit increase in Strategic Supplier Partnership would yield 0.056 increases in supply chain performance of supermarkets in Nairobi Kenya,
However, t-significance value 0.674 was established depicting that Strategic Supplier Partnership is significantly related with supply chain performance of supermarkets in Nairobi Kenya. A unit increase in Information technology Adoption would lead to a positive 0.639 increase in supply chain performance of supermarkets in Nairobi Kenya. A t-significance of 0.028 was established depicting that Information technology Adoption is not significant with supply chain performance of supermarkets in Nairobi Kenya. However, Collaboration Procurement would have a negative impact on supply chain performance of supermarkets in Nairobi Kenya given a coefficient of -0.334 (p=0.347). A unit increase in Agile Procurement would lead to a -0.131 decrease in supply chain performance of supermarkets in Nairobi Kenya. A t-significance of 0.302 was established depicting a significant relationship with supply chain performance of supermarkets in Nairobi Kenya. A unit increase in Lean Procurement would lead to a -0.122 decrease in supply chain performance of supermarkets in Nairobi Kenya. A t-significance of 0.558 was established depicting a significant relationship with supply chain performance of supermarkets in Nairobi Kenya. A unit increase in Continuous Development would lead to a -0.146 decrease in supply chain performance of supermarkets in Nairobi Kenya. A t-significance of 0.222 was established depicting a significant relationship with supply chain performance of supermarkets in Nairobi Kenya.

This clearly shows that strategic supplier partnership, information technology adoption would lead to rise in supply chain performance of supermarkets in Nairobi Kenya. However, collaboration procurement, agile procurement, lean procurement and information technology adoption negates supply chain performance of supermarkets in Nairobi Kenya as it has a negative coefficient.

Table 4.10: Model Goodness of Fit

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Continuous Development, Strategic Supplier Partnership, Collaboration Procurement, Agile Procurement, Lean Procurement, Information technology Adoption
The study used Table 4.10 to establish whether supply chain performance of supermarkets in Nairobi, Kenya has a linear dependence on the independent variables. The study established a correlation value of 0.316. This depicts a good linear dependence between the two variables. An R-square value of 0.100 was established and adjusted to 0.029. The coefficient of determination depicts that Strategic Supplier Partnership, Collaboration Procurement, Agile Procurement, Lean Procurement, Information technology Adoption and Continuous Development accounts for 27.6% variations in supply chain management; 72.4% of variations are accounted for by factors not captured in the model.

**Table 4.11: Analysis of Variance (ANOVA)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>.638</td>
<td>6</td>
<td>.106</td>
<td>1.401</td>
<td>.225a</td>
</tr>
<tr>
<td>Residual</td>
<td>5.771</td>
<td>76</td>
<td>.076</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6.410</td>
<td>82</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Continuous Development, Strategic Supplier Partnership, Collaboration Procurement, Agile Procurement, Lean Procurement, Information technology Adoption

b. Dependent Variable: Does adoption of dynamic procurement practices influence the organization performance

Analysis of Variance was used to test the significance of the regression model as pertains to significance in the differences in means of the dependent and independent variables. The ANOVA test produced an f-value of 1.401 which was significant at p=0.225. This depicts that the regression model is not significant at 95% confidence level. That is, it has 22.5% probability of misrepresentation.
### 4.7 Correlation Analysis

**Table 4.12: Correlation analysis of Strategic Supplier Partnership**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Pearson Correlation</td>
<td>.781**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Pearson Correlation</td>
<td>.800**</td>
<td>.883**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Pearson Correlation</td>
<td>.747**</td>
<td>.804**</td>
<td>.710**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Pearson Correlation</td>
<td>.823**</td>
<td>.838**</td>
<td>.783**</td>
<td>.908**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6 Pearson Correlation</td>
<td>.765**</td>
<td>.776**</td>
<td>.728**</td>
<td>.830**</td>
<td>.930**</td>
<td>1</td>
</tr>
</tbody>
</table>

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

Source: Research Data (2014)

Where

1 = The supermarket has built long term relationship between its suppliers to improve its strategic and operational capacity

2 = The supermarket has built long term relationship with suppliers to enhance its value addition

3 = The supermarket has built long term relationship aimed at improving supply chain performance

4 = Strategic partnership has encouraged mutual planning and problem solving efforts

5 = The supermarkets has become more competitive, flexible and efficient

6 = The supermarket has been able to exchange information on demand and proper management of inventory levels

The Pearson’s correlation co-efficient of Strategic Supplier Partnership and the supermarket has built long term relationship with suppliers to enhance its value addition is 0.781, the supermarket has built long term relationship aimed at improving supply chain performance (0.800), strategic partnership has encouraged mutual planning and problem solving efforts (0.747), the supermarkets has become
more competitive, flexible and efficient (0.823), and the supermarket has been able to exchange information on demand and proper management of inventory levels (0.765). These coefficients imply that there exists a positive association of the supermarket has built long term relationship with suppliers to enhance its value addition (78.1), the supermarket has built long term relationship aimed at improving supply chain performance (80.0), strategic partnership has encouraged mutual planning and problem solving efforts (74.7), the supermarkets has become more competitive, flexible and efficient (82.3), and the supermarket has been able to exchange information on demand and proper management of inventory levels (76.5) to strategic supplier Partnership. This positive association suggests that when one increases, Strategic Supplier Partnership increases and vice versa.

**Table 4.13: Correlation analysis of Collaboration Procurement**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>The supermarket has experienced smooth flow of information and reduction of cost and operational expenses</th>
<th>The supermarket has reduced lead time and achieved flexibility</th>
<th>The supermarket has eliminated costly delays</th>
<th>The supermarket has increased access to timely information for decision making</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has experienced smooth flow of information and reduction of cost and operational expenses</td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The supermarket has reduced lead time and achieved flexibility</td>
<td>Pearson Correlation</td>
<td>.279</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>The supermarket has eliminated costly delays</td>
<td>Pearson Correlation</td>
<td>.125</td>
<td>.300**</td>
<td>1</td>
</tr>
<tr>
<td>The supermarket has increased access to timely information for decision making</td>
<td>Pearson Correlation</td>
<td>.279</td>
<td>1.000**</td>
<td>.300**</td>
</tr>
</tbody>
</table>

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

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

The Pearson’s correlation co-efficient of Collaboration Procurement and The supermarket has reduced lead time and achieved flexibility is 0.279, The supermarket has eliminated costly delays (0.125) and The supermarket has increased access to timely information for decision making (0.279). These coefficients imply that there exists a positive association of the supermarket has reduced lead time and achieved flexibility (27.9%), the supermarket has eliminated costly delays (12.5%) The
supermarket has increased access to timely information for decision making (27.9) to Collaboration Procurement. This positive association suggests that when one increases, Collaboration Procurement increases and vice versa.

**Table 4.14: Correlation analysis of Agile Procurement**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Pearson Correlation</td>
<td>.287**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Pearson Correlation</td>
<td>.411**</td>
<td>.865**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Pearson Correlation</td>
<td>.287**</td>
<td>1.000**</td>
<td>.865**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Pearson Correlation</td>
<td>.265*</td>
<td>.953**</td>
<td>.907**</td>
<td>.953**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6 Pearson Correlation</td>
<td>.225</td>
<td>.952**</td>
<td>.865**</td>
<td>.952**</td>
<td>.953**</td>
<td>1</td>
</tr>
</tbody>
</table>

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

Where

1 = Agile procurement practice has enabled the supermarket to respond faster to change in demand
2 = Agile procurement practice has enabled the supermarket handled external disruptions smoothly
3 = Agile procurement practice has enabled the supermarket to respond to market volatility and uncertainties
4 = Agile procurement practice has enabled the supermarket use fuel efficient vehicles to transport products
5 = The supermarket has achieved all time shelf availability
6 = The Supermarket has built excellent customer service

The Pearson’s correlation co-efficient of agile Procurement and Agile procurement practice has enabled the supermarket handled external disruptions smoothly is 0. 287 Agile procurement practice has enabled the supermarket to respond to market volatility and uncertainties (0. 411), Agile procurement practice has enabled the supermarket use fuel efficient vehicles to transport products (0. 287), The supermarket has achieved all time shelf availability (0. 265), and The Supermarket
has built excellent customer service (0.225). These coefficients imply that there exists a positive association of Agile procurement practice has enabled the supermarket handled external disruptions smoothly (28.7%), Agile procurement practice has enabled the supermarket to respond to market volatility and uncertainties (44.1%), Agile procurement practice has enabled the supermarket use fuel efficient vehicles to transport products (28.7), The supermarket has achieved all time shelf availability (26.5), and The Supermarket has built excellent customer service (22.5) to agile Procurement. This positive association suggests that when one increases, agile Procurement increases and vice versa.

Table 4.15: Correlation analysis of Lean Procurement

<table>
<thead>
<tr>
<th>Correlations</th>
<th>The supermarket has eliminated waste</th>
<th>The supermarket has Improved quality</th>
<th>The supermarket has achieved faster delivery and flexibility</th>
<th>The supermarket has reduced cost</th>
<th>The supermarket has responded to short term change in demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has eliminated waste Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The supermarket has Improved quality Pearson Correlation</td>
<td>.310**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The supermarket has achieved faster delivery and flexibility Pearson Correlation</td>
<td>.254†</td>
<td>.953**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The supermarket has reduced cost Pearson Correlation</td>
<td>1.000**</td>
<td>.310**</td>
<td>.254†</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>The supermarket has responded to short term change in demand Pearson Correlation</td>
<td>.947**</td>
<td>.263†</td>
<td>.211</td>
<td>.947**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
The Pearson’s correlation co-efficient of lean Procurement and The supermarket has Improved quality is 0.310, the supermarket has achieved faster delivery and flexibility (0.254), the supermarket has reduced cost (1.00), and the supermarket has responded to short term change in demand (0.947). These coefficients imply that there exists a positive association of The supermarket has Improved quality (31.0%), the supermarket has achieved faster delivery and flexibility (25.4%), The supermarket has responded to short term change in demand (100.0), the supermarket has achieved faster delivery and flexibility (94.7) to lean Procurement. This positive association suggests that when one increases, lean Procurement increases and vice versa.

Table 4.16: Correlation analysis of Information technology Adoption

<table>
<thead>
<tr>
<th>Correlations</th>
<th>The supermarket has been able to process orders faster</th>
<th>The information technology adoption has encouraged transparency in procurement process</th>
<th>The supermarket has been able to achieve a good competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has been able to process orders faster</td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>The information technology adoption has encouraged transparency in procurement process</td>
<td>Pearson Correlation</td>
<td>.191</td>
<td>1</td>
</tr>
<tr>
<td>The supermarket has been able to achieve a good competitiveness</td>
<td>Pearson Correlation</td>
<td>.856**</td>
<td>.072</td>
</tr>
</tbody>
</table>

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

The Pearson’s correlation co-efficient of Information technology Adoption and the information technology adoption has encouraged transparency in procurement process is 0.191 and the supermarket has been able to achieve a good competitiveness (0.856). These coefficients imply that there exists a positive association of the information technology adoption has encouraged transparency in procurement process (19.1%), and the supermarket has been able to achieve a good competitiveness (85.6) to Information technology Adoption. This positive association suggests that when one increases, Information technology Adoption increases and vice versa.
Table 4.17: Correlation analysis of Continuous Development

<table>
<thead>
<tr>
<th>The supermarket has been able to develop efficient customer response</th>
<th>The supermarket has been able to reduced customer demand uncertainty</th>
<th>The supermarket has reduced inventory levels and stock out number</th>
<th>The supermarket has improved customer service</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has been able to reduced customer demand uncertainty</td>
<td>Pearson Correlation</td>
<td>.953**</td>
<td>1</td>
</tr>
<tr>
<td>The supermarket has reduced inventory levels and stock out number</td>
<td>Pearson Correlation</td>
<td>.348**</td>
<td>.332**</td>
</tr>
<tr>
<td>The supermarket has improved customer service</td>
<td>Pearson Correlation</td>
<td>-.623**</td>
<td>-.678**</td>
</tr>
</tbody>
</table>

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

The Pearson’s correlation co-efficient of Continuous Development and The supermarket has been able to reduced customer demand uncertainty is 0.953, and the supermarket has reduced inventory levels and stock out number (0.348). These coefficients imply that there exists a positive association of the supermarket has been able to reduced customer demand uncertainty (95.3%) and the supermarket has reduced inventory levels and stock out number (34.8) to Continuous Development. This positive association suggests that when one increases, Continuous Development increases and vice versa.

The Pearson’s correlation co-efficient of Continuous Development and the supermarket has improved customer service is -0.623. These coefficients imply that there exists a negative association of the supermarket has improved customer service (62.3) to Continuous Development. This positive association suggests that when one increases, Continuous Development decreases and vice versa.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary and Discussion
This study aimed to determine the dynamic procurement practices and supply chain performance of supermarkets in Nairobi, Kenya. The task included determining the dynamic procurement practices used by supermarkets in Nairobi, Kenya and establishing the relationship between dynamic procurement practice and supply chain performance of supermarkets in Nairobi, Kenya.

The researcher reviewed previous studies with a view to establish academic gaps which the present study sought to bridge. This was done through library research. The procedure included: reading, evaluating the methodology employed in terms of design choice, target population, sample and sampling procedure data collection instruments (that is suitability, validity and reliability), data collection procedures, data analysis, findings and recommendations. The researcher benefited so much from the literature review for it guided the present study by pointing to areas that need to be investigated.

This study employed quantitative research as the main approach to guide the study. The target population included all supermarkets in Nairobi, Kenya. The research instrument used in data collection was a questionnaire to collect data from the organizations. To ensure validity of the instruments, expert opinion was sought. Data analysis was started immediately after the field. Data was summarized into frequencies and percentages and presented in graphs, pie charts and tables.

The study findings revealed that all the respondents agreed that they have knowledge on dynamic procurement practices. The findings reveal that majority of the respondents indicated that they have ever been involved in the implementation of dynamic procurement practices. The study findings also depict that majority of the respondents agreed that the adoption of dynamic procurement practices influence the organization performance.
The study findings also revealed that majority of the respondents to a great extent agreed to the following statements regarding strategic supplier partnership practices; the supermarket has built long term relationship aimed at improving supply chain performance, the supermarket has built long term relationship between its suppliers to improve its strategic and operational capacity, the supermarket has built long term relationship with suppliers to enhance its value addition and the supermarkets has become more competitive, flexible and efficient.

The study findings also depict majority of the respondents to a great extent agreed to the following statements regarding collaboration procurement practices; the supermarket has eliminated costly delays, the supermarket has reduced lead time and achieved flexibility and the supermarket has increased access to timely information for decision making. However a large proportion of the respondents agreed to a very great extent to the following statements regarding collaboration procurement practices; the supermarket has experienced smooth flow of information and reduction of cost and operational expenses, the supermarket has reduced lead time and achieved flexibility and the supermarket has increased access to timely information for decision making.

The study findings also depict that majority of the respondents to a very great extent agreed to the following statements regarding agile procurement practices; agile procurement practice has enabled the supermarket to respond faster to change in demand, agile procurement practice has enabled the supermarket handled external disruptions smoothly, agile procurement practice has enabled the supermarket use fuel efficient vehicles to transport products and the supermarket has built excellent customer service. However a large proportion of the respondents agreed to a great extent to the following statements regarding agile procurement practices; agile procurement practice has enabled the supermarket to respond to market volatility and uncertainties, the supermarket has achieved all time shelf availability, agile procurement practice has enabled the supermarket handled external disruptions smoothly, agile procurement practice has enabled the supermarket use fuel efficient vehicles to transport products and the supermarket has built excellent customer service.
The study also found out that majority of the respondents to a very great extent agreed to the following statements regarding lean procurement practices; the supermarket has eliminated waste, the supermarket has reduced cost, the supermarket has responded to short term change in demand, the supermarket has achieved faster delivery and flexibility and the supermarket has Improved quality. However a large proportion of the respondents agreed to a great extent to the following statements regarding lean procurement practices; the supermarket has improved quality and the supermarket has achieved faster delivery and flexibility.

The study also found out that majority of the respondents to a very great extent agreed to the following statements regarding information technology adoption; the information technology adoption has encouraged transparency in procurement process, the supermarket has been able to achieve a good competitiveness the supermarket has been able to achieve a good competitiveness and the supermarket has been able to process orders faster. However a large proportion of the respondents agreed to a great extent to the following statement regarding information technology adoption; the supermarket has been able to process orders faster and the supermarket has been able to achieve a good competitiveness.

The study also found out that majority of the respondents to a very great extent agreed to the following statements regarding continuous replenishment; the supermarket has reduced inventory levels and stock out number, the supermarket has been able to develop efficient customer response and the supermarket has improved customer service. However a large proportion of the respondents agreed to a great extent to the following statement regarding continuous replenishment; the supermarket has been able to reduced customer demand uncertainty, the supermarket has improved customer service and the supermarket has been able to develop efficient customer response.

The study also found out that majority of the respondents agreed to the following statements regarding the effects of supply chain risks: security risks are more common in the organization, supply risks are more prominent in the organization, demand risks are more prevalent in the organization, and operational risks are common in the
organization. A large proportion strongly indicated that the challenges faced when adopting dynamic procurement practices in the supermarket are: Lack of awareness among the employees, retailers and suppliers, Lack of appropriate tools and techniques for measuring performance, Lack of appropriate technology, Lack of effective communication among the supply chain team (14.5%), and Lack of commitment from the top management.

The study also found out that all the respondents indicated that there has been growth in customer satisfaction and retention, improved quality, increased productivity, organization effectiveness, and improved customers’ quality of life for the years 2009-2013. The regression model findings reveal that that strategic supplier partnership, information technology adoption would lead to rise in supply chain performance of supermarkets in Nairobi Kenya. However, collaboration procurement, agile procurement, lean procurement and information technology adoption negates supply chain performance of supermarkets in Nairobi Kenya as it has a negative coefficient.

5.2 Conclusions

Based on the findings of the study, the following main conclusions were made for dynamic procurement practices and supply chain performance of supermarkets in Nairobi, Kenya.

The findings reveal to a great extent that; the supermarket has built long term relationship aimed at improving supply chain performance, the supermarket has built long term relationship between its suppliers to improve its strategic and operational capacity, the supermarket has built long term relationship with suppliers to enhance its value addition and the supermarkets has become more competitive, flexible and efficient are true regarding strategic supplier partnership practices. The findings reveal that to a great extent agreed to the; the supermarket has eliminated costly delays, the supermarket has reduced lead time and achieved flexibility and the supermarket has increased access to timely information for decision making are true regarding collaboration procurement practices. The study findings reveal to a very great extent that; agile procurement practice has enabled the supermarket to respond faster to change in demand, agile procurement practice has enabled the supermarket
handled external disruptions smoothly, agile procurement practice has enabled the supermarket use fuel efficient vehicles to transport products and the supermarket has built excellent customer service are true regarding agile procurement practices.

The study findings reveal to a very great extent that; the supermarket has eliminated waste, the supermarket has reduced cost, the supermarket has responded to short term change in demand, the supermarket has achieved faster delivery and flexibility and the supermarket has Improved quality are true regarding lean procurement practices.

The study findings reveal to a very great extent that; the information technology adoption has encouraged transparency in procurement process, the supermarket has been able to achieve a good competitiveness the supermarket has been able to achieve a good competitiveness and the supermarket has been able to process orders faster are true regarding information technology adoption.

The study findings reveal to a very great extent that; the supermarket has reduced inventory levels and stock out number, the supermarket has been able to develop efficient customer response and the supermarket has improved customer service are true regarding continuous replenishment.

The study findings further reveal that the challenges faced when adopting dynamic procurement practices in the supermarket are: Lack of awareness among the employees, retailers and suppliers, Lack of appropriate tools and techniques for measuring performance, Lack of appropriate technology, Lack of effective communication among the supply chain team, and Lack of commitment from the top management. The findings also show that there has been growth in customer satisfaction and retention, improved quality, increased productivity, organization effectiveness, and improved customers’ quality of life for the years 2009-2013.

It is concluded that Strategic Supplier Partnership and Information technology Adoption influence supply chain performance of supermarkets in Nairobi Kenya while collaboration procurement, agile procurement, lean procurement and information technology adoption negates supply chain performance of supermarkets in Nairobi Kenya as they have negative coefficients.
5.3 Recommendations

On the basis of the above, conclusions, the following recommendations were made for dynamic procurement practices and supply chain performance of supermarkets in Nairobi, Kenya. There is need for supermarkets to address the challenges that are faced when adopting dynamic procurement practices such as awareness among the employees, retailers and suppliers, lack of appropriate tools and techniques for measuring performance, lack of appropriate technology, lack of effective communication among the supply chain team, and lack of commitment from the top management. By addressing this issues the supermarkets will enhance efficient procurement practices that will in turn boost supply chain performance further boosting the firms overall performance.

5.3.1 Limitation of the Study and Suggestions for Further Research

This study sought to determine dynamic procurement practices and supply chain performance of supermarkets in Nairobi, Kenya attempting to bridge the gap in knowledge that existed with major challenges and establishing the relationship between dynamic procurement practice and supply chain performance of supermarkets in Nairobi, Kenya. Although the study attained these, it mainly focused on supermarkets only. The there is need to conduct a similar study which will attempt to find out Integrating logistics strategies, Supply chain integration and performance and relationship between supply chain performance and supply chain responsiveness of supermarkets in Nairobi, Kenya.
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APPENDICES

APPENDIX 1: QUESTIONNAIRE

SECTION A: GENERAL INFORMATION

1. What is the name of your company?
   ………………………………………………..

2. Which department do You Work For in the company
   ………………………………………………..

3. Do you have knowledge on dynamic procurement practices? (Yes/No)
   Yes [ ] No [ ]

4. Have you ever been involved in the implementation of dynamic procurement practices? (Yes/No)
   Yes [ ] No [ ]

5. As an organization, do you appreciate the role of dynamic procurement practices? (Yes/No)
   Yes [ ] No [ ]

6. Does adoption of dynamic procurement practices influence the organization performance (Yes/No)
   Yes [ ] No [ ]
SECTION B: DYNAMIC PROCUREMENT PRACTICES

7. Below is a list of practices of Dynamic procurement practices. Kindly indicate the extent to which you agree with the following statements concerning dynamic procurement practices.

(1) Very great extent (2) Great extent (3) moderate extent (4) Small extent (5) very small extent.

<table>
<thead>
<tr>
<th>Strategic supplier partnership practices</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has built long term relationship between its suppliers to improve its strategic and operational capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The supermarket has built long term relationship with suppliers to enhance its value addition</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The supermarket has built long term relationship aimed at improving supply chain performance.</td>
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<tr>
<td>Strategic partnership has encouraged mutual planning and problem solving efforts.</td>
<td></td>
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<tr>
<td>The supermarkets has become more competitive, flexible and efficient</td>
<td></td>
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<tr>
<td>The supermarket has been able to exchange information on demand and proper management of inventory levels</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Collaboration procurement practices</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has experienced smooth flow of information and reduction of cost and operational expenses.</td>
<td></td>
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<tr>
<td>The supermarket has reduced lead time and achieved flexibility.</td>
<td></td>
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<tr>
<td>The supermarket has eliminated costly delays</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
The supermarket has increased access to timely information for decision making

<table>
<thead>
<tr>
<th>Agile procurement practices</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agile procurement practice has enabled the supermarket to respond faster to change in demand</td>
<td></td>
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<tr>
<td>Agile procurement practice has enabled the supermarket handled external disruptions smoothly</td>
<td></td>
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<tr>
<td>Agile procurement practice has enabled the supermarket to respond to market volatility and uncertainties</td>
<td></td>
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<tr>
<td>Agile procurement practice has enabled the supermarket use fuel efficient vehicles to transport products</td>
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</tr>
</tbody>
</table>

The supermarket has achieved all time shelf availability.
The Supermarket has built excellent customer service.

<table>
<thead>
<tr>
<th>Lean procurement practices</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has eliminated waste</td>
<td></td>
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<tr>
<td>The supermarket has Improved quality</td>
<td></td>
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<tr>
<td>The supermarket has achieved faster delivery and flexibility</td>
<td></td>
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<tr>
<td>The supermarket has reduced cost.</td>
<td></td>
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<tr>
<td>The supermarket has responded to short term change in demand</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information technology Adoption</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>The supermarket has been able to process orders faster</td>
<td></td>
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<tr>
<td>The information technology adoption has encouraged transparency in procurement process.</td>
<td></td>
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</tr>
</tbody>
</table>
The supermarket has been able to achieve a good competitiveness

**Continuous replenishment**

1 2 3 4 5

The supermarket has been able to develop efficient customer response

The supermarket has been able to reduced customer demand uncertainty

The supermarket has reduced inventory levels and stock out number

The supermarket has improved customer service

8. What are other dynamic procurement practices currently practiced in your supermarket?

--------------------------------------------------------------------------------------------------------

--------------------------------------------------------------------------------------------------------

**SECTION C: CHALLENGES OF DYNAMIC PROCUREMENT PRACTICES**

9. Identify the challenges faced when adopting dynamic procurement practices in your supermarket. (Tick as appropriate)

<table>
<thead>
<tr>
<th>CHALLENGES</th>
<th>TICK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of appropriate technology</td>
<td></td>
</tr>
<tr>
<td>Lack of awareness among the employees, retailers and suppliers</td>
<td></td>
</tr>
<tr>
<td>Lack of appropriate tools and techniques for measuring performance</td>
<td></td>
</tr>
<tr>
<td>Lack of commitment from the top management</td>
<td></td>
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<tr>
<td>Lack of effective communication among the supply chain team</td>
<td></td>
</tr>
</tbody>
</table>
SECTION D: SUPPLY CHAIN PERFORMANCE MEASURES

10. Indicate the impact dynamic procurement practices have had on your supermarket performance for following years.

<table>
<thead>
<tr>
<th>Period</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
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</thead>
<tbody>
<tr>
<td>Performance measures.</td>
<td></td>
<td></td>
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<tr>
<td>Cost reduction(kshs)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Customer satisfaction and retention (%)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Improved quality (%)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Increased productivity (%)</td>
<td></td>
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<tr>
<td>Organization effectiveness (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Improved customers quality of life (%)</td>
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</tbody>
</table>

11. Outline other impacts of Dynamic procurement practices on organizational performance .................................................................
........................................................................................................................................
........................................................................................................................................

12. What is your opinion on the future of procurement Management Practices?
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
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APPENDIX II: SUPERMARKETS IN NAIROBI KENYA

1. Homecare Enterprises Ltd, Nairobi
2. Eastmatt Supermarket, Nairobi
3. Tumaini supermarket, Nairobi
4. Quickmart Supermarket, Nairobi
5. Kamindi Self Ridges, Nairobi
6. Tuskys Supermarket,
7. Elipa Supermarket, Nairobi
8. Upturn Technologies, Nairobi
9. Nakumatt Holdings
10. Jazeer Supermarket Ltd, Nairobi
11. Naivas Ltd, Nairobi
12. Horyal Supermarket, Nairobi
13. Cosby Supermarket, Nairobi
14. Marketways supermarket, Nairobi
15. DnD Supermarket-, Umoja., Nairobi
16. Bluemart supermarket, Nairobi
17. north view supermarket, Nairobi
18. Ukwala supermarket ltd, Nairobi
19. Vantage Supermarket Ltd, Nairobi
20. Uncle Jim's Supermarket, Nairobi
21. Uchumi Supermarkets Ltd.
22. Trolleys and Baskets, Nairobi
23. Tesco Corporation Ltd, Nairobi
24. Superbargains Cash and Carry Ltd, Nairobi
25. Sunshine Supermarket, Nairobi
26. Stagen Enterprises Ltd, Nairobi
27. Spring Valley Supermarket (1979), Nairobi
28. Shoppers Paradise, Nairobi
29. Savannah Selfridge Supermarket, Nairobi
30. Satellite Supermarket Ltd, Nairobi
31. Safeway Hypermarkets Ltd, Nairobi
32. Rosjam Supermarket, Nairobi
33. Rikana Supermarkets, Nairobi
34. Raken Supermarket Ltd, Nairobi
35. Portway Stores Ltd, Nairobi
36. Parklands Pricerite Ltd, Nairobi
37. New Westland Stores Ltd, Nairobi
38. Neibas Supermarket, Nairobi
39. Naivasha Supermarkets Ltd, Nairobi
40. Muthaiga Mini Market, Nairobi
41. Mustard Supermarket, Nairobi
42. Mulika Mini Market, Nairobi
43. Midas Touch Supermarket Ltd, Nairobi
44. Metro Cash and Carry (K) Ltd, Nairobi
45. Mesora Supermarket Ltd, Nairobi
46. Marketway Ltd, Nairobi
47. Kenton Supermarket, Nairobi
48. Kaymambunguba Supermarket, Nairobi
49. Karen Supermarket, Nairobi
50. Kalumos Trading Company Ltd, Nairobi
51. Kaka Self Services Ltd, Nairobi
52. Kaaga Mini Market Ltd, Nairobi
53. K and A Self Selection Store Ltd, Nairobi
54. Juja Road Fancy Store Ltd, Nairobi
55. Joster Mini Market, Nairobi
56. Jopampa Provision Store, Nairobi
57. Jey Supermarket, Nairobi
58. Jeska Supermarket Ltd, Nairobi
59. Jawa's Supermarket Ltd, Nairobi
60. Janamu Supermarket, Nairobi
61. Jack and Jill Supermarket Ltd, Nairobi
62. Jack and Jill Extravaganza Ltd, Nairobi
63. Homechoice Supermarket, Nairobi
<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>64.</td>
<td>Happy Valley Supermarket Ltd, Nairobi</td>
<td>Nairobi</td>
</tr>
<tr>
<td>65.</td>
<td>Guestcare Ideal Homes Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>66.</td>
<td>Fairdeal Shop and Save Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>67.</td>
<td>Esajo Supermarket, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>68.</td>
<td>Ebrahim and Company Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>69.</td>
<td>Eastleigh Mattresses Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>70.</td>
<td>Eagles Supermarket, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>71.</td>
<td>Deepak Cash and Carry Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>72.</td>
<td>Country Mattresses Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>73.</td>
<td>Continental Supermarket Ltd, Nairobi</td>
<td>Nairobi</td>
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<td>74.</td>
<td>Clean Way Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>75.</td>
<td>City Mattresses Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>76.</td>
<td>Chandarana Supermarkets Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>77.</td>
<td>Centaling Supermarket, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>78.</td>
<td>Centaline Supermarket, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>79.</td>
<td>Cash and Carry Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>80.</td>
<td>Buru Buru Mini Market, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>81.</td>
<td>Builders Supermarket Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>82.</td>
<td>Broadway Supermarket, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>83.</td>
<td>Betccam Savers Supermarket, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>84.</td>
<td>Armed Forces Canteen Organization, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>85.</td>
<td>Amal Supermarket Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>86.</td>
<td>African Grocers Ltd, Nairobi</td>
<td>Nairobi</td>
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<tr>
<td>87.</td>
<td>Aflose Supermarket Ltd, Nairobi</td>
<td>Nairobi</td>
</tr>
<tr>
<td>88.</td>
<td>Acacia Supermarket Ltd, Nairobi</td>
<td>Nairobi</td>
</tr>
</tbody>
</table>

**Source (APLEX Kenya business directory June 2014)**