

**SUPPLY CHAIN MANAGEMENT PRACTICES AND  
COMPETITIVENESS IN THE NATIONAL GOVERNMENT OF  
KENYA: A CASE STUDY OF RUIRU SUB-COUNTY**

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Award of the Degree of Master of Business Administration  
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## DECLARATION

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

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

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## **DEDICATION**

This project is dedicated to my husband Andrew Baariu, my two lovely kids Brayden and Belda and my entire family.

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## **ABSTRACT**

The overall objective of this study was to evaluate supply chain management practices as a source of competitiveness in the national Government of Kenya in Ruiru sub-county. The specific objectives of this study were to establish supply chain management practices used by the national government, determine the relationship between supply chain management practices and competitiveness in the national government and describe the challenges of supply chain management practices faced by the national Government of Kenya in Ruiru sub-county. Primary data was collected using questionnaires and was summarized, edited, coded, tabulated and analyzed. The data was analyzed using percentages, means, standard deviations and frequencies. The information was also represented by use of bar charts, graphs and pie charts and in prose-form. These measures were used to describe the characteristics of the collected data. Correlation and multiple linear regression were used to establish the degree of associations among the study variables. From the research findings, misinformed advocacy groups, lack of clear definitions, incomparable environmental information and awareness of marketing and sales were the impediments of information technology factors that were influencing supply chain management practices. The recommendations are mainly to the Kenyan Government. Kenyan Government needs to expand supply chain management, integrating the bulk of the country's population into profitable supply chains that satisfy these demands, and investment in areas of technical production, public market infrastructure, and the legal and regulatory environment.

## **ABBREVIATIONS**

EDI	Electronic Data Interchange
ERP	Electronic Resource Planning
JIT	Just in Time
KEMSA	Kenya Medical Supplies Agency
POS	Point-of-Sale
RSC	Reverse Supply Chain
SC	Supply Chain
SCM	Supply Chain Management
SCMP	Supply Chain Management Practice
TQM	Total Quality Management
VMI	Vendor Managed Inventory

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

The globalization of the business operation has forced organizations as well as government entities to widen their resources and capability through establishment of appropriate policies to greater heights. As a result, attention is increasingly drifting towards external collaboration and networking outside the boundaries of the organization. This change is necessary in order for a firm to remain competitive locally and internationally (Oliver & Weber, 2002). A strong integration of both upstream and downstream relationship with other stakeholders will help any institution to develop necessary competitiveness. Supply Chain Management (SCM) has over the recent years taken great importance due to its potential to enhance operational success. According to Mentzer & DeWitt (2001), in order for an organization to meet customer requirement, the integration of various business process such as demand planning and forecasting, procurement, distribution and return of resources from point of origin to destination has become an important practice in SCM.

The simultaneous integration of customer requirements, internal processes, and upstream supplier performance is commonly referred to as SCM. The SCM is an integrated approach beginning with planning and control of materials, logistics, services, and information stream from suppliers to manufacturers or service providers to the end client; it represents a most important change in business management practices (Fantazy et al., 2010). The SCM is one of the most effective ways for firms to improve their performance. With the purpose of managing the supply chain actions for realizing improvement in enterprise performance, it is necessary to improve the planning and management of activities such as materials planning, inventory management, capacity planning and logistics with suppliers and clients.

### **1.1.1 Supply Chain Management Practices**

The concept of Supply Chain Management practices (SCMPs) has received a wide range of definitions as the authorities defining it. According to Li et al., (2006), SCMPs are defined as the set of activities undertaken by an organization to promote effective management of its supply chain (SC). Wong et al., (2005) defined SCM as the approaches applied in integration, managing and coordination of supply, demand and relationships in order to satisfy clients in effective. Zhou and Benton, (2007), suggest that efficient SCM and purchasing practices may have a significant effect on firm performance. Their study showed that sales, market share, and market position are influenced by not only advertising, competition level, product pricing and positioning and degree of innovation in product lines, but also purchasing factors, thus emphasizing purchasing strategic impact on the firm. This means that the purpose and performance of a firm to fulfill various customer demands or to improve the efficiency of a firm itself can be different depending on the characteristics and utilization focus of supply chain practice . Tan (2002), also stresses that supply chain practices are needed for satisfying customer demands and gave examples of some successful examples of SCPs such as Amazon.com, Tesco, Dell Computer and Toyota to confirm the existence possibility of significant causal relationship between the utilization characteristics of supply chain practice and firm performance.

Fantasy et al., (2010) points that, for effective SCM, a comprehensive effort for improvement in all of supply chain functions within a firm should be made. First of all, the focus of SCPs should shift from functional and independent to general and integrative. This implies that the performance of each supply chain practice should be evaluated depending on how the practice has a significant effect on the efficient integration of entire SC processes, and thus, the successful achievement of SCM integration can be possible by the systematic utilization of various supply chain practices. Bowersox (2009) also had the same perspective with the above argument. He asserts that the process of SCM integration should progress from the integration of supply chain practices.

Oliver and Weber, (2002) point that it has been shown that a good organized and executed SCM will make it possible for companies to decrease their inventories, have better customer service, diminish costs as well as aid fast inventory turns. One of the biggest advantages of SCM in the situation of short term objectives is increasing productivity and decreasing inventory and reducing lead time. On the other hand, based on long-term objectives, this factor has significant roles in increasing a company's market share and having outside integration of the SCM (Li et al., 2006).

### **1.1.2 National Government**

A national government is the government of a nation-state and is more typically a characteristic of a unitary state ([www.wikipedia.com](http://www.wikipedia.com), accessed 19.02.2014). It further points that it is the same thing as a federal government which may have distinct powers at various levels authorized or delegated to it by its member states, though the adjective 'national' is sometimes used to describe it. The structure of national governments varies and the case of Kenya, national government is structured through the constitution 2010 with administrative and policy making powers being distributed to its three arms namely executive, legislature and judiciary; the government is composed of the executive, legislature and the judiciary.

The executive is headed by the president of the republic and is guided by an underlying framework of laws. The laws require the president to appoint between 14 and 22 cabinet secretaries reflecting ethnic and regional diversity ([www.president.go.ke](http://www.president.go.ke), accessed 19.02.2014). According to the new constitution, the legislature is held responsible for advocating for the people's interest in law making. In addition, it is vested in two houses - the national assembly and the senate. The adoption of the constitution 2010 adds a twist to law making. This is because the earlier constitution exclusively placed the law making process in the hands of parliament. For the judiciary, this arm of government mainly centers on the Kenyan judicial system. The Kenyan judicial system adheres to a hierarchical system, with the supreme court being the highest organ, followed by the court of appeal, high court, magistrate's courts and other subordinate courts. The chief justice is the president of

the judiciary and is appointed by the president subject to the approval of the national assembly.

Usual responsibilities of the national government at this level of government which are not granted to lower levels is maintaining national security and exercising international diplomacy, including the right to sign binding treaties. Basically, the national government has the power to make laws for the whole country, in contrast with county governments. In the case of procurement, public procurement has, for long, been overshadowed with inefficiency, corruption and disregard of fundamental "value for money" considerations. This has adversely impacted the rate and quality of progress in realizing the objectives of national development, especially in developing and transition countries (Tan, 2002). Employees may neither engage in, nor give the appearance of engaging in, dishonest or unethical actions. Both are injurious to the public's perception of honest government. As a government employee, one might have access to procurement and other nonpublic information that could affect a contract bid or the award process (Wymer & Regan, 2005).

### **1.1.3 Competitiveness in National Government**

An organizational competitiveness is the ability of the firm to be responsive and adaptable to change, which will finally have an effect on the position of the firm in the marketplace (Lynn, 1991). Implicitly, companies should become more customers focused (internally and externally) in both domestic and foreign markets by becoming quality orientated. To achieve a level of competitiveness, an organization should aim to achieve the desired competitiveness through the use of all its internal resources, including its employees.

There are several approaches to measuring competitiveness (Barnes, 2004). One is to link price competitiveness, a microeconomic concept, with external balance, a macroeconomic concept. The prices of exports and imports that drive trade flows and thus external balance are determined in part by the costs and strategies of individual businesses, for which microeconomic concepts of price competitiveness are crucial.

But macroeconomic factors such as exchange rates, which an individual firm does not control, also affect a firm's price competitiveness. Together firms' microeconomic decisions and broader macroeconomic factors affect the price competitiveness of exporters and import-competing firms, and price competitiveness is one force driving trade flows and external balance. Indicators based on export prices do not adequately reflect what happens to enterprises' profits in the competitive sector. Hence, a relative cost measure is also called for. While export unit values at a point in time may provide the relevant information that purchasers of a country's goods look at in making their buying decisions, they may not provide a good indicator for longer-term trade.

Price competitiveness is not the only determinant of external balance, however. The external deficit represents the collective actions of individual consumers, businesses, and government. The balance is determined by the difference between aggregate domestic production and aggregate domestic spending. When a country spends more than it produces, it will have a deficit even if in price terms its workers and producers are world-class competitors. Moreover, prices measure competitiveness only at a given point in time. Long-term competitiveness is founded on the quality of resources firms use to produce goods and services as well as on the decisions made by households, businesses, and government to spend and save. The efficiency with which the financial markets transform savings into investment, the pace and uptake of technological innovations, the ability of workers to adjust to changing skills demanded in the workplace, and the quality of the political and policymaking processes all affect a country's long-term to produce and compete in the international marketplace (Chase et al., 2001).

#### **1.1.4 Ruiru Sub-County**

Ruiru is a decentralized unit in the county government of Kiambu. It is headed by a sub-county administrator appointed by a public service board. The head of Ruiru Sub-County is the deputy county commissioner. It has a population of around 201,986 persons, among them being civil servants who work for the government and covers an area of approximately 179.90 square kilometres. It is connected by both rail and road and Ruiru Sub-County is an industrious town with several major factories that



including Devki Steel Mills, Spinners and Spinners among others. Even in economic downturn, the sub county is able to withstand because of its competitiveness. It is a cosmopolitan town in that it has people from all over Kenya speaking different languages.

Ruiru Sub-County offers residential town for the nation's capital due to large number of businesses. There are many banks that serve as a source of financial support to the residents and these banks are a source of competition. The government has its departments and they serve the people of Ruiru Sub-County like the registration of persons department, water and irrigation, procurement department among others.

The chain of supply runs from the National Treasury where the head of supply chain is located. This follows SCM officers being employed in the sub-county. The officers produce tenders for the sub-county through advertisements and hence through this the government buys items for the county through the procurement department. Through tenders, there is requisition of goods to the departments and hence suppliers are paid through the sub-county treasury.

## **1.2 Problem Statement**

Basnet et al., (2005) point that the primary role of SCM is to meet the customer requirement in terms of providing the customer with the right product, of right quality and quantity, from a right source, at a right price and finally utilizing the right technology. Evaluating the performance of the government sector on the above basis will show that the Kenyan public sector does not meet the above criteria successfully. There is need therefore for the public sector to develop effective supply chain practices in order to remain competitive and this forms the basis of this research in which the role of SCM practices as a source of competitiveness will be investigated. Chong and Ooi (2008), assert that a good organized and executed SCM will make possible organizations to decrease their inventories, have better customer services and diminishing costs of developing their inventory turns. Pressure is growing on public bodies to improve performance of how they procure goods, services and works contracts. It is known that despite government concentrated efforts in reforming

procurement systems, there is still a problem attributable to huge losses in improper procurement to about KShs 30 billion (Central Bank of Kenya, 2013). Public procurement requires a tight system to be followed and adopted since public resources are scarce. The efficiency of the procurement process is a primary consideration of every procurement regime. The operations of the public sector institutions has lately been criticized for a number of reasons including slow speed of implementing projects, alleged corruption in the procurement process as well as a slow process of service delivery. Suppliers of services to the government have complained of too much bureaucracy in the process which in turn has led to delayed payment and delivery of goods and services to the public in cognizance of the problem facing the public sector in Kenya. One of the factors that can be implemented to improve public sector competitiveness is adoption of effective and efficient SCM.

Local studies have been done on SCMPs and service delivery. For instance, Joseph (2012) on commercial electricity SCM practices in Kenya, Opiyo (2012) information integration on SCM among food processing firms in Nairobi, Kenya Moenga (2012) SCMPs and challenges for the small scale tea sector in Kenya, Mogire, (2011) SCM practices in five star hotels in Nairobi, Onyango (2012) SCMPs in cement industry in Kenya, Otila (2012) SCMPs used in the cosmetic industry in Kenya, Mukasa (2003) the impact of SCMPs on performance the case of Safaricom Limited, Gitonga (2007) perceived effectiveness of performance contracts on service delivery at the Ministry of Immigration and Registration of Births, Budi (2012), challenges in the management of procurement process within Kenya rural roads, Munene (2012) incorporating green purchasing as a best practice in procurement of in-flight products at Kenya Airways, Osemebe (2005) effects of operational management practices on the procurement of pharmaceutical products in developing countries: a case of Kenya Medical Supplies Agency (KEMSA); these studies identified several critical problems with Kenya's procurement system; weak oversight institutions, poor linkages between procurements and expenditures, delays and inefficiencies and poor records management. No known study has been done on SCMPs as a source of competitiveness in the national government. The interest in the study has been

inspired by the existing knowledge in addition to the current literature which is biased towards developed nations, creating further a gap in unique needs identified several critical problems with Kenya's procurement system weak oversight institutions, poor linkages between procurements and expenditures, delays and inefficiencies and poor records management. The research questions of this study are:

- i. What are SCMPs used by the national government of Kenya in Ruiru Sub-County?
- ii. What is the relationship between SCMPs and competitiveness in the national government of Kenya in Ruiru Sub-County?
- iii. What are the challenges of SCMPs faced by the national government of Kenya in Ruiru Sub-County?

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

The overall objective of this study was to evaluate SCMPs and competitiveness in the national government of Kenya in Ruiru Sub-County. The specific objectives of this study were to:

- i. Establish SCMPs used by the national government of Kenya in Ruiru Sub-County.
- ii. Determine the relationship between SCMPs and competitiveness in the national government of Kenya in Ruiru Sub-County.
- iii. Describe the challenges of SCMPs faced by the national government of Kenya in Ruiru Sub-County.

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

The government undertakes various duties throughout the country and despite its importance, scarce research have been undertaken on SCMPs. This study will therefore provide a framework on the understanding the contribution being brought about by SCM. The study will also enable the government to come up with policies whose overall objectives will be to accelerate SCM within the government and its departments.

The private sector will also derive great benefit from the study since the study will come up with findings and recommendation to the extent to which SCM is a source of competitiveness to a firm. The study explored how various business oriented organization at the international level have employed SCM to gain competitiveness and this can be used by the local private sector to improve their operation. The study discusses the various stages of supply chain and the type of competitiveness it brings to the overall supply chain.

Future scholars may use the results of this study as a source of reference. The findings of this study can be compared to SCMPs in other sectors to draw conclusions on the effectiveness of SCM practices in those sectors. The study will also benefit consultants who endeavor to provide assistance on successful running of organizations in developing and sustaining a competitive edge in their environment.

Ruiru Sub-County will benefit from this research in that the findings will be useful in promoting SCMPs. This will lead to better procurement and supplies in the sub-county. The suppliers will also benefit through efficient services offered by supplies department and other departments through the research findings.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter provides information from literature related to the research problem. It examines what various scholars and authors have said about the concept of SCMPs. The chapter covers theoretical framework, SCMPs and organizational competitiveness.

#### **2.2 Theoretical Perspective**

With the globalization of business activities, the way organizations conduct their business activities both within and between themselves has changed as both public and private entities have created new requirements for business operations. According to Taylor & Cook (2009), the way firms share and physically distribute goods has become a key area of interest to ensure security of supply chain partners and ultimately the society as a whole. On this basis, this current research takes this view and adopts the institutional theory.

The institutional theory suggests that institutions are social systems and this explains why organizations adopt practices, policies and practices, what they should look like and how they should behave (Scott, 2001). The institutional theory therefore can be used to answer questions concerning the influence of institutional on social influence. On this position, McFarland et al., (2008), posit that in regard to the SCMPs, institutional theory can be used to explain why institutions are motivated to adopt the SCM. The main argument of institutional theory is that organizations operate in a social network whereby it is influenced and influences the society through the society rules (Ingram & Simons, 2005). This reality is created by values and norms that have been adapted and evolve in a particular society. This means that something is becomes the norm if it is institutionalized among the organizations in a particular environment.

The process by which organizations adopt similar policies and adopt homogenous set of organizations is called isomorphism (DiMaggio & Powel, 2003). They point that

isomorphic actions are developed from a set of environmental actions, which force organizations to mirror one another and from these actions organizations become legitimized and accepted by the society. This implies that when organization adopts to the legitimized elements from the environment, then its likelihood of survival is increased.

### **2.3 Supply Chain Management Practices**

The SCMPs are integrated approach beginning with planning and control of materials, logistic, services, and information stream of suppliers to manufacturers or service providers to the end client and according to Fantazy et al., (2010), it represents a most important change to business management practices. With the objective of managing Supply Chain (SC) actions for realizing improvement in business performance, it is necessary to plan and manage activities such as materials planning, capacity planning and logistics. With this therefore, a number of SCMPs are carried out in business related organization. The section discusses several SC practices employed in government units.

Strategic sourcing practice consists of strategic outsourcing and supplier capability analysis. They in addition posit that the construct strategic supplier partnership is an integral element to the second order construct of SCM (Li et al., 2006). In the government unit context, strategic sourcing has been found to influence knowledge creation and sharing among suppliers and government agencies (Dewsnap & Hart, 2004). Since suppliers and government units are a single most customer in any country, have different knowledge domains, the combination can create unique knowledge that can be applied to improve business knowledge.

Sanchez & Peres (2003) assert that rich experience of firms with Electronic Resource Planning (ERP) tend to deliver higher benefits while the Electronic Data Interchange (EDI) adopter perceive more operational benefits, more external pressures and mutual understanding, and fewer technical and organizational difficulties than non-adopters of EDI. Information sharing practices such as Vendor Managed Inventory (VMI) give

manufacturers more accurate information than before, for example customer sales data.

Information sharing practice refers to the extent to which non-public information is communicated along the SC. A number of studies have examined the value of information sharing along SC. For the most part, these researchers have attempted to quantify the benefits of sharing information by using simulation approaches. Integration is considered as a process of interaction and collaboration in which manufacturing, supply management and logistics work together in a cooperative manner to arrive at mutually acceptable outcomes for their organization (Pagell, 2004).

Chong & Ooi, (2008) point out that as SCM engages working with external groups namely; customers and suppliers, a strategic partnership between SC partners will be required. For instance, for implementing Supply Chain Standard (SCS) such as Rosettanet standards, strategic partnership and SC members are the most important factors. Sourcing decisions are fundamental with respect to SCM. The choice of supplier, how businesses are effectively integrated to obtaining proper complementary skills will form an important practice for any business unit. Narasimhan & Jayaram, (2008) found that strategic sourcing initiatives improve SC performance and through examining the type of sourcing decisions, strategic sourcing decisions were found to be strongly related to manufacturing goal achievement in a study of 215 North American manufacturers. In addition, the construct strategic supplier partnership is an integral element to the second order construct of SCM (Li et al., 2006).

The defining elements of strategic sourcing have been identified to be the status of supply management within the organizational hierarchy, internal coordination of supply management with other functions in a firm, active information sharing with suppliers, and comprehensive supplier development activities (Kocabasoglu & Suresh, 2006). Since suppliers and retailers have knowledge in different domains, the combination can create unique knowledge that can be applied to improve business knowledge. Better relationships between government units and their suppliers also

improve prospects of new product acceptance (Kaufman, 2002). Suppliers on their part take risks in placing untried products on the shelves. The retailer's reputation is at stake if the product does not perform well, and consumers may hold the retailer responsible for selling substandard products.

Reverse logistics is defined as the effective and efficient management of the series of activities required to retrieve a product from a customer in order to either dispose of it or recover value (Defee et al., 2009). Firm control has been recognized as a crucial component of SCM. Sanderlands (1994) noted that the first step in SCM is to introduce structure and discipline to the supply process, tightening up procedures, and taking control of all activities in the SC. An important way to introduce structure is to formalize logistics operations. The rapid growth in the volume of returns often outpaces the abilities of firms to successfully manage the flow of unwanted product coming back from the market. The complex procedures and steps required for any Reverse Supply Chain (RSC) to be operational is to make most companies to shy away from undertaking the same process. Mollenkopf et al. (2007) outlined several processes involved in the RSC process that discouraged most organizations from pursuing. These processes include initiate returns, determine routing, receive returns, select disposition, credit the customer and analyzing the performance.

The public procurement system in Kenya has undergone significant developments. From being a system with no regulations in the 1960s, and a system regulated by treasury circulars in the 1970s, 1980s and 1990s. The introduction of the Public Procurement and Disposal Act (PPDA) of 2005 and the procurement regulations of 2006 introduced new standards for public procurement in Kenya. At the end of last year, the Government of Kenya after three years of hesitation, procrastination and excuses finally brought into law the much coveted and anticipated PPDA. Disposal methods are clearly stated in the PPDA (2005) and Public Procurement and Disposal Regulation (PPDR (2006) that a public entity can dispose by way of public auction, open public tender, trade-in, destroying or giving to another public entity for free.



These controversies have been made more profound by the difficulty in estimating the exact magnitude and trends of government procurement and the executive arm of government's perceived interference in the acquisition process, particularly in the award of contracts. Procurement in the public sector in Kenya is regulated by Public Procurement Oversight Authority (PPOA) by ensuring that public entities comply with the procurement act of 2005 and its legislation of 2006. Part (viii) of the act itemizes the authority power to ensure compliance. The act underscores the need for transparency and open procurement or disposal process and it, thus regulates procurement in public sector. The law provide for the following committees which have defined powers tender committee- standing committee with a minimum membership of five, evaluation committee-ad hoc committee with a minimum membership of three, and tender opening committee- ad hoc committee with a minimum membership of three, inspection and acceptance committee- ad hoc committee with a minimum membership of three, disposal committee, which is a standing committee with a minimum membership of five and procurement committee-ad hoc committee with minimum membership of three.

#### **2.4 Relationship Between Supply Chain Management Practices and Competitiveness**

Competition in the 1990s intensified and markets became global, so did the challenges associated with getting a product and service to the right place at the right time at the lowest cost. Organizations began to realize that it is not enough to improve efficiencies within an organization, but their whole SC has to be made competitive. The understanding and practicing of SCM has become an essential prerequisite for staying competitive in the global race and for enhancing profitably.

Several external factors continue to strive the organization to adopt the new way of conducting businesses, that is increasing globalization, decreased barriers to international trade, improvement of information availability through information technology and increasing customer demand (Sahay & Mohan, 2003: Gunasekaran et al. 2003). In order to survive, company must be able to reduce cost, improve quality

and provide fast response to the customer needs. One of the ways of achieving that competitive edge is through the implementation of SCMPs (Muhammad, 2004).

Global competition is transforming the way products are produced and moved around the world. Globalization has brought a new structure into the business world called global SC. A global SC is a network of factories and material sourcing on a worldwide basis. International value chains are a mechanism by which firms can achieve a competitive advantage of either low cost or differentiation through the processing activities performed and their corresponding linkages with suppliers and buyers (Sahay & Mohan, 2003). These networks have to be carefully managed to improve quality and reduce cost as well as lead-time. It requires controlling the inbound, outbound and procurement functions, with a supporting information system. These activities, nodes and linkages of the international value chain become spread out around the world, and therefore it is essential to coordinate the operations carefully.

## **2.5 Challenges of Supply Chain Management Practices**

To compete successfully in today's challenging business environment, companies need to focus on SCMPs that have impact on enhancing SCM activities and ultimately performances. Public procurement, at the county government level, is believed to be one of the principle areas where corruption in Kenya takes place (National Public Procurement Integrity Baseline Survey, 2006). Corruption is disastrous to the sound functioning of any government department and has been an intractable problem in many developing countries especially where it has become systematic to the point where many in government have a stake. It diverts decision- making and the provision of services from those who need them to those who can afford them (Langseth et al, 1997).

Lawal, (2000) further asserts that corruption has been rampant among these civil bureaucrats to whom the public funds meant for developmental purposes are entrusted. Generally, wide-scale embezzlement by officials at the grassroots has made the needed development at this level a tall dream and has rendered them financially

incapable of discharge their constitutionally assigned responsibilities hence compromising service delivery.

At every stage of public procurement, there are risks of integrity. During the pre-bidding period starting from needs assessment, common risks include lack of adequate needs assessment, planning and budgeting of public procurement, requirements that are not adequately or objectively defined an inadequate or irregular choice of the procedure and a time frame for the preparation of the bid that is insufficient or not consistently applied across bidders. Organization for Economic Co-operation and Development (OECD), 2007. All these concern the function of SCMPs. Should county government's procurement system fail to manage these risks, accountability and eventual service delivery is seriously threatened.

In the provision of public services, it is a challenge to get the actual providers to be accountable for quality and efficiency as well as to have the resources and management authority to do the job well. The general feeling in the hot spots is that political leadership lacks responsiveness to issues raised by communities, incompetent, prone to corruption and with high degree of disregard for the communities which also compromises the delivery of services in county governments.

The other contributing factor is that local ward committees are not fully operational, resulting in poor communication with communities. Ward committees have been the focus of considerable attention by government as well civil society, with substantial investment already made in an attempt to ensure that these structures have the necessary capacity and resources required for them to fulfill their envisaged roles as the voices of communities (Langseth et al., 1997). At the same time, questions that are often asked are how effective are these institutions and whether they are useful conduits for community involvement in local governance; whether, has created space for public participation, they are inherently capable of playing the critical role expected of them towards service delivery.

## **2.6 Empirical Review**

Several studies have been undertaken to identify and validate the SCMPs but according to Chabbor et al., 2008, there has been no pattern to defining and adopting indicators and constructs for the SCMPs. Tan et al., (2002) identified 24 SCM practices from the previous studies and from the same formed six constructs namely; supply chain integration, information sharing, SC characteristics, customer service management, geographical proximity and Just in Time (JIT) capability.

Delaney et al, 2006 point that organizational performance can be evaluated by quality service and products, satisfying customers, market performance, service innovations, and employee relationships. On the other hand, Hoque et al, 2000 in their study of organizational performance based on balanced scorecard, stated that organizational performance can be appraised by return of investment, margin on sales, capacity utilization, customer satisfaction and product quality. In the same way, Greene et al, 2007 identified that return on investment, sales and market growth, and profit are important factors that can be measured by organizational performance. In all these performance measures, SCMPs have a positive relationship or generally affects the level of organizational performance.

A strong customer leads to improved marketing and financial performance (Green et al., 2005). As customers begin to demand that the products and services that they purchase be eco-friendly, it is important that manufacturers generate intelligence related to these changing customer demands. A manufactured product that remains unsold in inventory, because it does not satisfy customer demand is blatantly environmentally unfriendly. A company's customer relation practices can affect its success in managing the supply base as well as its performance (Turner, 1993). A key element of successful supply base management involves downstream integration of customers as well as the management of upstream suppliers. Each entity in SC is a supplier as well as a customer. When a customer driven corporate vision is implemented simultaneously with effective Total Quality Management (TQM) and supply base management practices, it can produce a competitive edge in a number of

different ways. These include increases in productivity, reductions in inventory and cycle time, increased customer satisfaction, market share and profits.

Carr & Smeltzer (1999) have documented how firms with strategic purchasing are able to foster long term, cooperative relationships and communication, and achieve greater responsiveness to the needs of their suppliers. Although other factors, such as restructuring and governance, and transaction cost economizing are also important for understanding strategic purchasing and its linkage to SC. Strategic purchasing fosters communication, which is critical to achieving effective integration throughout SC (Zollo et al., 2002). The literature review is summarized in Table 2.1 below.

Table 2.1 Summary of Literature Review

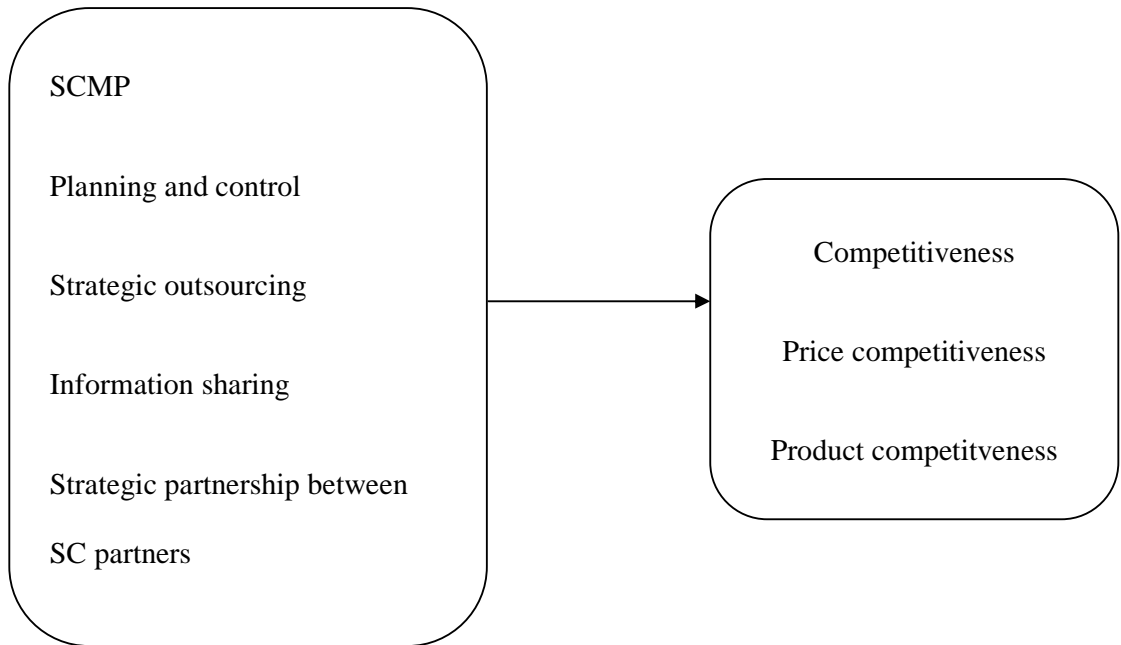
Study	Objectives	Methodology	Findings
<p>The impact of SCMP on competitive advantage and organizational performance</p> <p>(Suhong, 2004)</p>	<p>Investigate on the relationship strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement and SCMP</p>	<p>Data for the study were collected from 196 organizations and the relationships proposed in the framework were tested using structural equation modeling.</p>	<p>The results indicate that higher levels of SCMP can lead to enhanced competitive advantage and improved organizational performance. Also, competitive advantage can have a direct, positive impact on organizational performance.</p>
<p>SCM as a source of competitive advantage: a case study of three fast-growth companies</p> <p>(Toni, 2005)</p>	<p>Investigate on SCM as competitive advantage for a company according to the literature.</p> <p>To recommend SCM practices found in the case companies</p>	<p>Case study was conducted in three fast- growth companies by researching whether the companies utilize the practices suggested in the literature.</p> <p>Before the case studies were carried out, secondary information about the case companies was collected.</p>	<p>Authors recognized seven supply chain practices from the literature which could be a source of competitive advantage. In the case studies, some of these practices could be entities within all of the companies. The authors' conclusion was that it was worthwhile for the case companies to utilize and try to develop SC practices</p>
<p>Effect of SCM processes on competitive advantage</p>	<p>Investigate the effect of SCM processes on competitive advantage</p>	<p>Data for the study was collected from prominent</p>	<p>Results indicated that higher levels of SCM practice can lead to enhanced competitive advantage</p>

and organizational performance  (Ronald, 2012)	and organizational performance.  Establish SCM on competitive advantage and organizational performance.	organizations and the relationships proposed in the framework were tested using rigorous statistical techniques.	and improved organizational performance. These results have value to both the academic and business worlds as they provide verification of the widely held belief of the value of effective SCM.
An exploration of SCMP in the aerospace industry and in Rolls-Royce  (Mohit, 2005)	To investigate on SC structure of the Industry at Rolls-Royce.  Conduct an exploratory study of the best practices in SCM in the aircraft engine manufacturing industry, and how these practices impact the competitive positioning of an engine manufacturer within the industry.	Analysis involved a broad review of the current state and future directions of the aerospace industry by tracing the key factors shaping its evolution and by identifying the major strategic forces that would influence its future.	This involved a deeper exploration of the aircraft engine manufacturing business segment of Rolls-Royce and strives to understand the company's SCMP, by examining the role of major factors that have proven crucial to effective SCM within the company. Rolls-Royce's key metrics for operational performance were quality, cost and delivery. In a mature and consolidating industry, it seeks to retain customers, as well as do so profitably.

## 2.7 Conceptual Framework

The independent variable in this research was SCMPs and competitiveness are the dependent variable

Figure 2.1 Conceptual Framework



Independent variable

Dependent variable

Competitiveness pertains to the ability and performance of a firm, sub-county or county to sell and supply goods and services in a given market, in relation to the ability and performance of other firms, sub-sectors or countries in the same market. Information sharing referred to one-to-one exchanges of data between a sender and receiver. These information exchanges are implemented via dozens of open and proprietary protocols, message and file formats.

Planning and control is an important function in supply chain practices that enable management to continually plan for the future and assess implementation. Price competitiveness is setting the price of a product or service based on what the competition is charging. Price competitiveness is used more often by businesses



selling similar products, since services can vary from business to business while the attributes of a product remain similar.

Product competitiveness is generally used once a price for a product or service has reached a level of equilibrium, which often occurs when a product has been on the market for a long time and there are many substitutes for the product. Strategic outsourcing is the process of engaging the services of a provider to manage essential tasks that would otherwise be managed by in-house personnel. This is often done to allow a business to arrange the use of its assets to best advantage, and allow the company to move closer to the achievement of its goals. Strategic partnership is a formal alliance between two SC partners, commercial enterprises, usually formalized by one or more business contracts but falls short of forming a legal partnership or, agency, or corporate affiliate relationship.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the research methodology that was used to carry out the study. Research methodology dictates the kinds of research methodologies that were used to underpin this study and methods used in collection of data. Data was eventually used to generate new hypotheses based on the results of data collected about different variables and it involved the selection of the research design, the target population, sampling method used, data collection instrument and how data was analyzed, interpreted and presented.

#### **3.2 Research Design**

A cross sectional research design was used to establish the effect of SCMPs in the competitiveness of national government ministries at Ruiru Sub-County. This was used by Chege (2012) successfully. A descriptive research design was adopted because the study was concerned about a univariate question in which the researchers asked questions about the size, form, distribution and existence of SCMPs on the competitiveness of the ministries. This permitted the researcher to make statistical inference on the broader population and generalize the findings to real life situations and thereby increase the external validity of the study.

#### **3.3 Population**

The target population was all 10 national government ministries represented in the sub-county. The target population is the entire set of units for which the data are to be used to make inferences. Thus, the target population defines those units for which the findings of the survey are meant to generalize (Brenda, 2007). Mugenda & Mugenda (2003) define a population as a complete set of individuals, cases or objects with some common observable characteristics. The study targeted all 10 national government ministries in Ruiru Sub-County with a target population of 200 employees.

### 3.4 Sampling Design

Stratified random sampling technique was used whereby 10 strata were considered. A sample size of 100 employees was selected to give a response of 50 percent of the target population as shown in Table 3.1. This ensured that each member of the population have an equal chance of being included in the sample. Mugenda & Mugenda (2003), states that a sample of 30 percent and above is considered representative for a population less 500. The sample size is justified by 50 percent since it minimized the duplicity and redundancy of the data to be obtained and the size would be large enough to ensure collection of comprehensive data.

Table 3.1 Sample Size

Category	Target Population	Sample Size
Ministry of Interior and Co-ordination of National Government	54	27
Ministry of Devolution and Planning	2	1
Ministry of Education, Science and Technology	22	11
Ministry of National Treasury	11	5
Ministry of Transport and Infrastructure	18	9
Ministry of Water, Environment and Natural Resources	16	8
Ministry of Sports, Culture and the Arts	5	2
Ministry of Labour, Social Security and Services	55	28
Ministry of Industrialization and Enterprise Development	16	8
Ministry of East African Affairs, Commerce and Tourism	1	1
Total	200	100

### **3.5 Data Collection**

Primary data were collected by means of a questionnaire (Appendix I). The questionnaire were administered through email and on a drop and pick later method to the firms. The questionnaire contained four parts; part A covered the demographic and respondent's profiles, part B examined the objective one which, establishes SCMPs used by the national government in Ruiru Sub-County, part C covered the second objective of the study which covered the relationship between SCMPs and competitiveness in the national government in Ruiru Sub-County, and part D covered objective three of the study on the challenges of SCMPs faced by national government in Ruiru Sub-County and these are covered by the subsequent question 15 and 16.

The questionnaire allowed greater uniformity in the way questions were asked, ensuring greater compatibility in the responses. The use of close-ended questions on the questionnaire allowed for uniformity of responses to questions; while unstructured (close-ended) questions give the respondent freedom of response which helps the researcher to gauge the feelings of the respondent; how they can use their own words (Field, 2005).

### **3.6 Data Analysis**

In order to analyze data, various analyzes were done. For objective one; establish SCMPs used by the national government in Ruiru Sub-County, primary data was collected and analyzed using frequency, percentage, mean, standard deviation and displayed in form of table and charts. Objective two; establish the relationship between SCMPs and competitiveness in the national government in Ruiru Sub-County, primary data were collected and analyzed using frequency, percentage, mean, standard deviation and regression analysis. Objective three; describe the challenges of SCMPs faced by national government in Ruiru Sub-County, primary data was collected and analyzed using frequency, percentage, mean, standard deviation and displayed in form of table and charts. The summary of methodology is shown in Table 3.2 below.

Table 3.2: Summary of Methodology

Objectives	Data	Analyses
Establish SCMPs used by the national government.	Primary data	Frequency, percentage, mean and standard deviation
Determine the relationship between SCMPs and competitiveness in the national government of Kenya in Ruiru Sub-County.	Primary data	Frequency, percentage, mean, standard deviation and regression analysis
Describe the challenges of SCMPs faced by national government	Primary data	Descriptive statistics, frequency, percentage, mean and standard deviation

## **CHAPTER FOUR**

### **DATA ANALYSIS, RESULTS AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents analysis, results and discussion of the study on SCMPs and competitiveness in the national government of Kenya: a case study of Ruiru Sub County. The study was based on the following research objectives to establish SCMPs used by the national government of Kenya in Ruiru Sub-County; to determine the relationship between SCMPs and competitiveness in the national government of Kenya in Ruiru Sub-County; and to describe the challenges of SCMPs faced by the national government of Kenya in Ruiru Sub-County.

##### **4.1.1 Response Rate**

The study targeted 100 employees from national government ministries in Ruiru Sub-County out of which 100 employees responded and returned their questionnaires contributing to a response rate of 100 percent. This response rate was sufficient and representative and conforms to Mugenda & Mugenda (2003) stipulation that a response rate of 50 percent is adequate for analysis and reporting a rate of 60 percent is good while a response rate of 70 percent and over is excellent. This high response rate was due to extra efforts that were made via follow-up visits to remind the respondents to fill-in and return the questionnaires.

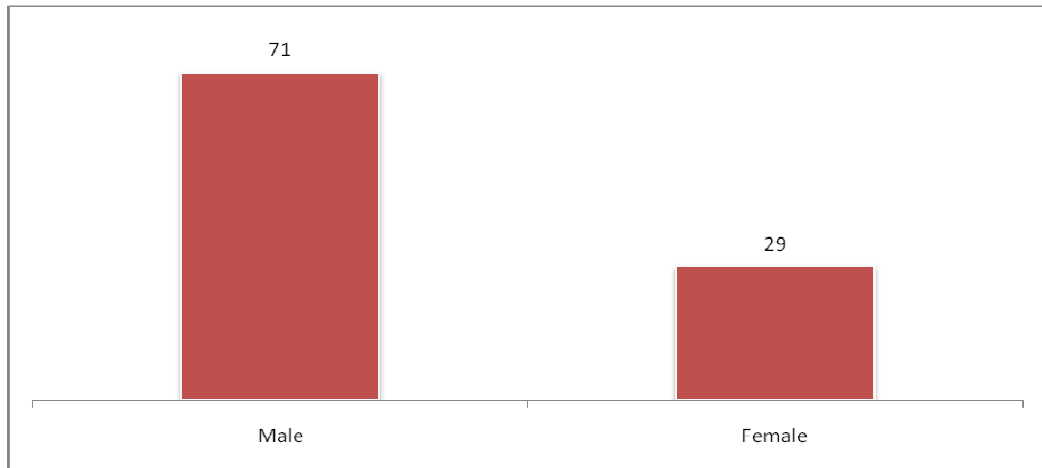
This chapter covers the demographic information and the findings based on the objectives. The findings were then presented in tables, graphs and charts as appropriate with explanations being given in prose thereafter.

#### **4.2 General Information**

The study initially sought to ascertain the general information on the respondents involved in the study with regards to the gender, age, highest level of education, job position and national government ministries at Ruiru Sub-County. The general information points at the respondents' suitability in answering the questions on SCMPs and competitiveness in the national government of Kenya; a case study of Ruiru Sub- County.

The gender of the study respondents was a key personal characteristic in defining their competence in their job. The respondents were therefore to give their gender and Figure 4.2 below shows the findings.

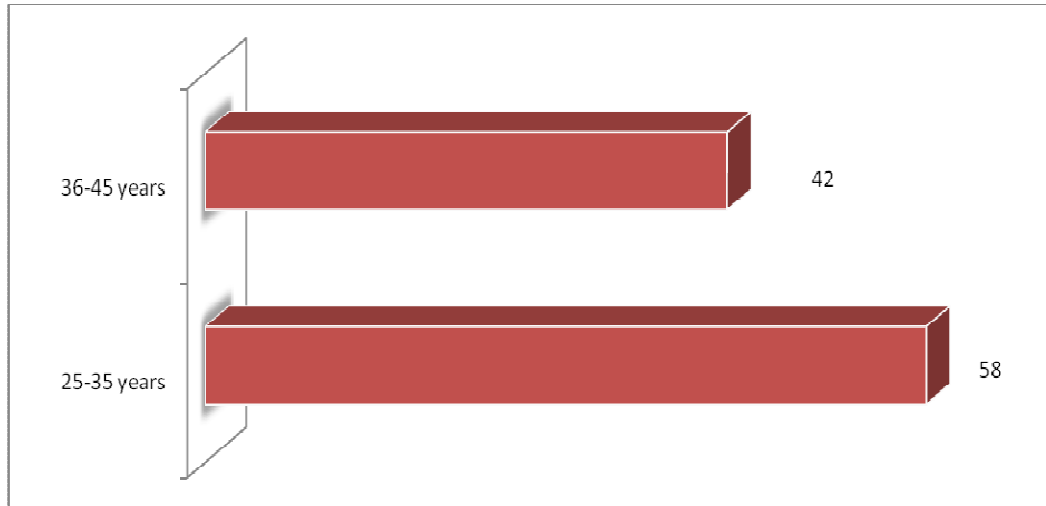
Figure 4.2: Distribution of Respondents by Gender (Percent)



From Figure 4.2 above, majority (71 percent) of the respondents were male while 29 percent were females. This implied that national government of Kenya ministries in Ruiru Sub-County had more males than females in the various levels of management and consequently, most of the responses emanated from the males.

The number of years that an individual has been in the organization and his or her age determines their level of dealing with challenges in the management of SC. The respondents were asked to indicate their age bracket. The study findings are shown in Figure 4.2 below.

Figure 4.2 Distribution of Respondents by Age Bracket (Percent)

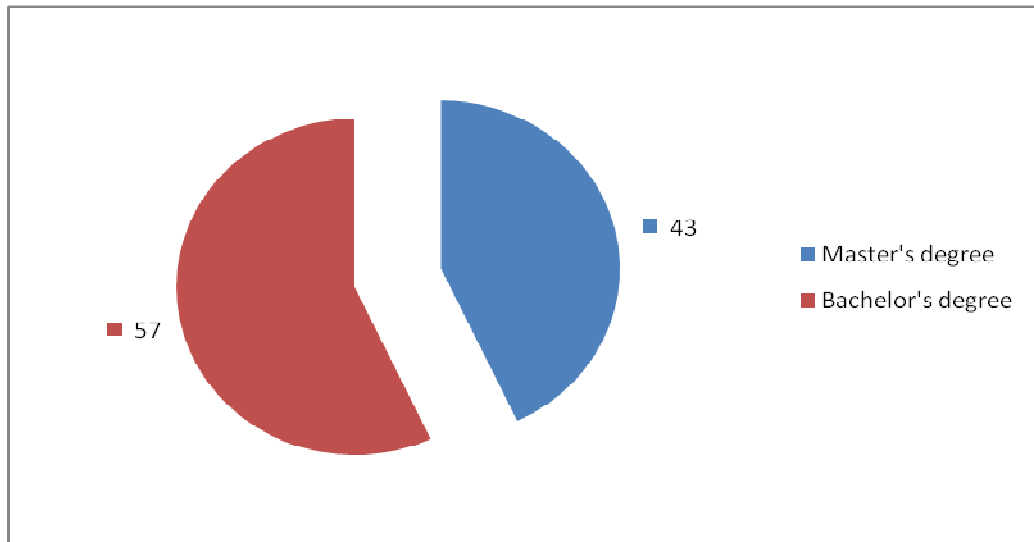


From Figure 4.2 above, majority of the respondents (58 percent) were between 25 to 35 years while 42 percent were 36 to 45 years. From the findings, majority of the employees in national government of Kenya in Ruiru Sub - County were aged 25 to 35 years and could therefore handle the labour intensive SCM works owing to their youthful age.

The highest level of education that an individual has acquired determines their competence in executing their mandate in dealing with challenges in the management of their organization SC. The employees of national government ministries in Ruiru Sub-County were required to indicate their highest level of education. The results are as shown in Figure 4.3 below.



Figure 4.3: Highest Level of Education of Respondents (Percent)



From Figure 4.3 above the majority (57 percent) of the employees of national government ministries in Ruiru Sub-County had a bachelor's degree as their highest level of education while 43 percent had masters degree as their highest level of education. This shows that most of the employees of national government ministries in Ruiru Sub-County had attained university education and thus had rich information and knowledge on the SCMPs and competitiveness in the national government of Kenya.

The study further inquired on the position held by the study respondents working in the national government ministries in Ruiru Sub-County. This would help to validate the quality of information they gave based on their position at their work place. The findings are as shown in Table 4.1 below.

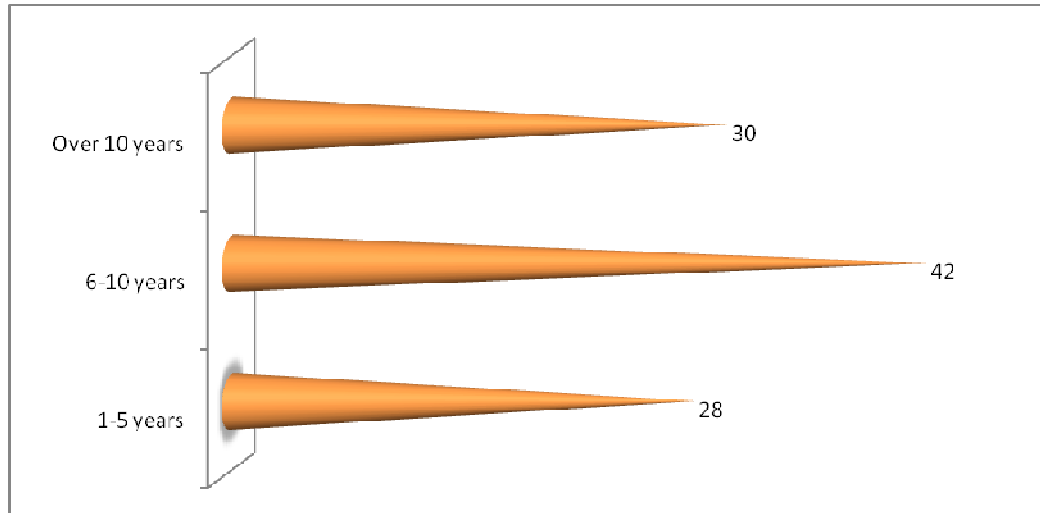
Table 4.1: Position in the National Government Ministries in Ruiru Sub-County

Position	Frequency	Percent
Procurement officers	56	56
Other government officers	44	44
Total	100	100.0

From Table 4.1 above, majority (56 percent) of the respondents were procurement officers while 44 percent were other government officer in their respective national government ministries in Ruiru Sub-County. This means that the respondents were highly experienced in matters to do with SCMPs and competitiveness in the national government of Kenya. Therefore, they were likely to give quality information owing to their working position as procurement officers.

The number of years that an individual has worked in the national government ministries at Ruiru Sub-County determines their level of experience in dealing with SCM challenges in their organization in order to enhance the organization's competitiveness. The respondents were asked to indicate the number of years that they had worked in their respective national government ministries in Ruiru Sub-County. Figure 4.4 below illustrates the study findings.

Figure 4.4: Years While Working in National Government in Ruiru Sub-County (Percent)



From Figure 4.4 above, most of the respondents (42 percent) had worked in their respective national government ministries in Ruiru Sub-County for 6 to 10 years, 30 percent for over 10 years while 28 percent had worked in their respective national government ministries in Ruiru Sub-County 1 to 5 years. These findings indicated that most of the employees in national government ministries in Ruiru Sub-County were highly experienced as they had worked for a long duration of 6 -10 years in the sector and hence had good information on SCMPs and competitiveness in the national government of Kenya.

### **4.3 Supply Chain Management Practices used by National Government of Kenya in Ruiru Sub-County**

The first objective of the study was to establish SCMPs used by the national government of Kenya in Ruiru Sub-County. The findings are presented in the subsequent sub themes. The first question in regard to whether JIT as a SCMPs adheres to all purchasing ethical issues before arriving at selection of suppliers by the national government ministries in Ruiru Sub-County. Figure 4.5 below shows the research findings.

Figure 4.5: Just in Time (Percent)

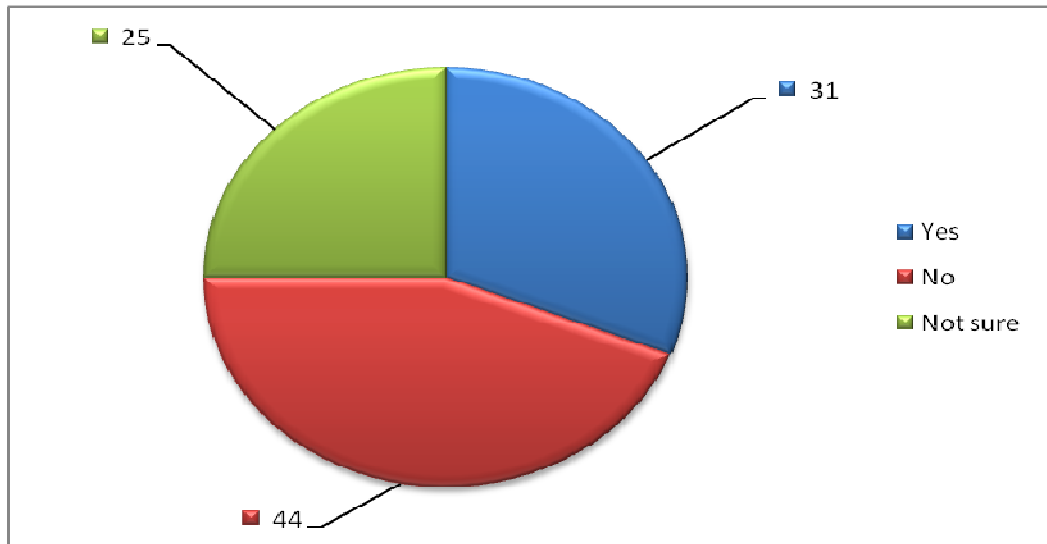
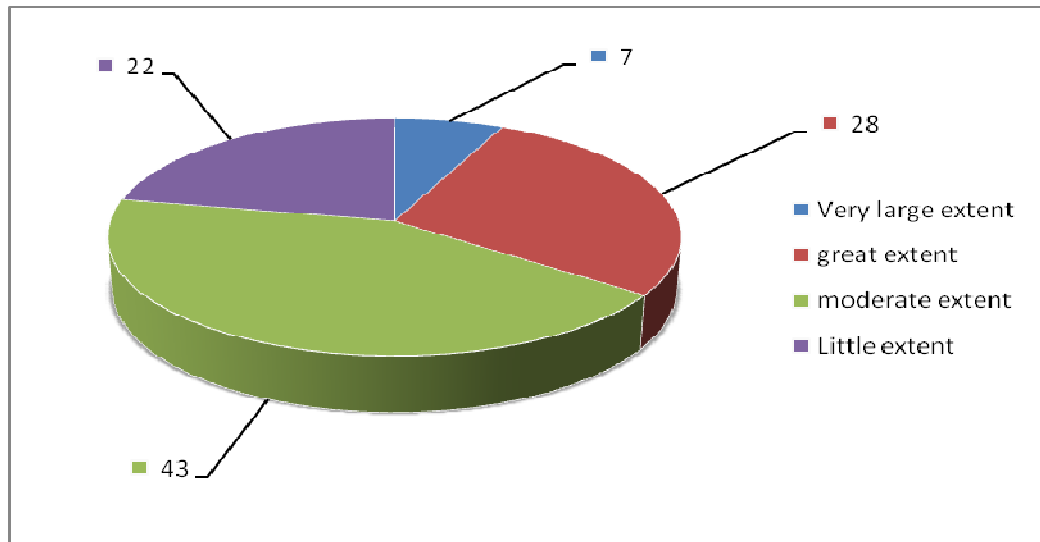


Figure 4.5 above indicates that most (44 percent) of the respondents indicated that JIT as a SCMPs never adheres to all purchasing ethical issues before arriving at selection of suppliers. Only 31 percent of the respondents indicated that JIT as a SCMP that adheres to all purchasing ethical issues before arriving at selection of suppliers. This depicts that JIT as a SCMP was not a common SCMP adopted by the government ministries in Ruiru Sub-County towards achieving competitiveness.

The SC practices are strategic in enhancing the competitiveness of the national government ministries. The study therefore inquired from the respondents on the extent to which JIT as a SCMP was used in SCM of national government ministries in Ruiru Sub-County. The study findings are shown in Figure 4.6 below.

Figure 4.6: Just in Time as a Supply Chain Management Practice Being Used in Supply Chain Management (Percent)



According to Figure 4.6 above, most (43 percent) of the respondents said that JIT was a SCMP was used in SCM of national government ministries in Ruiru Sub County to moderate extent, 28 percent to a great extent and 22 percent to a little extent. This indicates that SCMPs such as JIT were not effectively adopted and implemented in the national government ministries in Ruiru Sub County. The lack of comprehensive implementation of SCM practices greatly reduced the competitiveness in the national government of Kenya in Ruiru Sub-County as their SCs could not perform optimally.

The respondents were requested to indicate how lack of information technology influenced SCM. Their responses were rated on a five point Likert scale where: 5-to a very great extent, 4-to a great extent, 3-to a moderate extent, 2-to a little extent, and 1-to no extent. The findings are as shown in Table 4.2 below.

Table 4.2: Lack of Information Technology Influence on Supply Chain Management

	Mean
Misinformed advocacy groups	4.0500
Lack of clear definitions	3.8800
Incomparable environmental information	3.3100
Awareness of marketing and sales	2.8200

According to the findings shown in Table 4.2 above, the majority of the respondents indicated to a moderate extent ( $\geq 3.5$ ) that lack of information technology influenced SCM in the following ways; misinformed advocacy groups (mean=4.05), lack of clear definitions (mean=3.88), incomparable environmental information (mean=3.31) respectively.

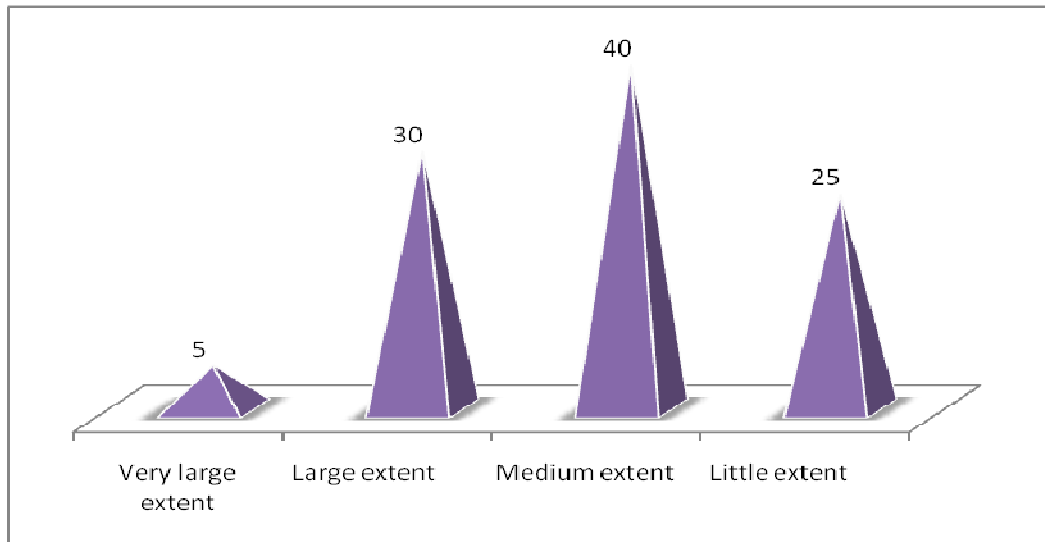
The findings implied that lack of information technology negatively influenced SCM to a great extent as contemporary SC strategies arise from adoption of information technology. The lack of adequate information technology infrastructure made SC not to perform optimally and minimize cost.

#### **4.4 Relationship Between Supply Chain Management Practices and Competitiveness**

The second objective of the study was to determine the relationship between SCMPs and competitiveness in the national government of Kenya in Ruiru Sub-County.

The study investigated on the extent to which SCMPs influenced competitiveness in the national government ministries in Ruiru Sub-County. Figure 4.7 below shows the findings.

Figure 4.7: Supply Chain Management and Competitiveness (Percent)



As Figure 4.7 above shows, most of the respondents (40 percent) indicated that SCMPs influenced competitiveness in the national government ministries in Ruiru sub-county to a moderate extent, 30 percent to a large extent, 25 percent to a little extent while only 5 percent indicated it happened to a very large extent. This means that the SCMPs influenced competitiveness in the national government ministries in Ruiru Sub-County only to a moderate extent and, therefore not performing to its optimal capacity.

The respondents were requested to indicate the extent to which various SCM performance measures were used in their organization. Their responses were rated on a five point Likert scale where: 5-to a very great extent, 4-to a great extent, 3-to a moderate extent, 2-to a little extent, and 1-to no extent. The findings are as shown in Table 4.3 below.

Table 4.3: Application of Supply Chain Management Performance Measures

Application of SCM performance measures	Mean
Innovation and change	3.2600
Employee performance	3.7600
Customer satisfaction	3.1200
Operating efficiency	2.7400
Financial performance	3.5800

According to the findings in Table 4.3 above, the majority of the respondents indicated to a moderate extent ( $\geq 3.0$ ) that the SCM performance measures they used in their organization included employee performance (mean=3.76), financial performance (mean=3.58), innovation and change (mean=3.26) and customer satisfaction (mean=3.12) respectively. In addition, the majority of the respondents indicated to a little extent ( $\geq 2.0$ ) that the SCM performance measures they used in their organization was operating efficiency (mean=2.74).

This implied that SCM performance measures in the national government ministries in Ruiru sub-county were only applied to a limited scale and without their full application it remains difficult to continuously monitor and improve the SC performance.

The respondents were required to rate various aspects of SCMPs when dealing with competitive strategies. Their responses were rated on a five point Likert scale where: 5-to a very great extent, 4-to a great extent, 3-to a moderate extent, 2-to a little extent, and 1-to no extent. The findings are as shown in Table 4.4 below.



Table 4.4: Rating of Supply Chain Management Aspects in Dealing With Competitive Strategies

Supply Chain Management Aspects in Dealing With Competitive Strategies	Mean
Quality	3.7100
Lead time	3.5600
Cost	3.2200
Flexibility	3.0600

Based on the findings in Table 4.4 above, the majority of the respondents rated to a moderate extent ( $\geq 3$ ) various aspects of SCM which included quality (mean=3.71), lead time (mean=3.56), cost (mean=3.22) and flexibility (mean=3.06) respectively. The findings indicated that the application of SCM practices by the national government of Kenya in Ruiru Sub-County was inadequate as it did not spur the competitiveness of the national government ministries in terms of quality, lead time, cost and flexibility.

The respondents were asked to indicate how they would rate the various issues on SCM when dealing with competitiveness measures used by national government ministries in Ruiru Sub-County. Their responses were rated on a five point Likert scale where: 5-to a very great extent, 4-to a great extent, 3-to a moderate extent, 2-to a little extent, and 1-to no extent. The findings are as shown in Table 4.5 below.

Table 4.5: Rating Issues on Supply Chain Management when Dealing With Competitiveness Measures

Issues on Supply Chain Management	Mean
Price competitiveness	2.8200
Product competitiveness	3.0200

Based on the findings in Table 4.5 above, the majority of the respondents rated to a moderate extent ( $\geq 3$ ) various aspects of SCM related to competitiveness measures as used by national government ministries in Ruiru Sub-County which includes; product competitiveness (Mean=3.02) and price competitiveness (Mean=2.82) respectively. This indicated that the competitiveness in the national government of Kenya in Ruiru Sub-County was only at average level and a lot of input in their SCM was required to achieve high level of competitiveness in terms of product and price competitiveness among the national government ministries of Kenya in Ruiru Sub-County.

The respondents were requested to indicate how important various SCM goals were in their operations. Their responses were rated on a five point Likert scale where: 5-to a very great extent, 4-to a great extent, 3-to a moderate extent, 2-to a little extent, and 1-to no extent. The findings are as shown in Table 4.6 below.

Table 4.6: Important Supply Chain Management Goals

Important Supply Chain Management Goals	Mean
Planning and control	3.3800
Strategic outsourcing	3.1600
Information sharing	3.4400
Strategic partnership between SC partners	3.2600
Reverse logistics	3.2000

Table 4.6 above shows that the majority of the respondents indicated to a moderate extent ( $\geq 3$ ) the important SCM goals used by their respective national government ministries in Ruiru Sub-County included planning and control (Mean=3.38), information sharing (Mean=3.44), strategic partnership between SC partners (Mean=3.26), reverse logistics (Mean=3.20) and strategic outsourcing (Mean=3.16) respectively. This indicated that the most important SCM practices in the national government ministries in Ruiru Sub-County included planning and control, strategic partnership between SC partners, reverse logistics and strategic outsourcing, respectively.

#### **4.5 Challenges of Supply Chain Management Practices**

The third objective of the study was to describe the challenges of SCMPs faced by the national government of Kenya in Ruiru Sub-County. Identifying the challenges of SCMPs in the national government of Kenya ministries in Ruiru sub-county is critical in enhancing the adoption of the best practices towards achieving competitiveness and optimal SC performance. With minimal challenges of SCMPs, national government of Kenya ministries SC is enabled to operate at its optimal performance, hence enabling the national government of Kenya ministries meet their strategic SC goals effectively.

The respondents were requested to indicate the extent to which various challenges of SCM practices were experienced in the national government of Kenya ministries in Ruiru sub-county. Their responses were rated on a five point Likert scale where: 5-to a very great extent, 4-to a great extent, 3-to a moderate extent, 2-to a little extent, and 1-to no extent. The findings are as shown in Table 4.7 below.

Table 4.7: Challenges of Supply Chain Management Practices

Challenges of Supply Chain Management Practices	Mean
Policy towards unemployment	3.2300
Environmental regulation and protection	2.9900
Consumer protection and competition regulation	3.6000
Economic growth challenges	3.1400
Monetary policy	2.8000
Government overspending	3.1500
Corruption	2.9400
Lack of finances to support provision of services	3.4100
Difficulty in getting the right service provider	3.1100
Inadequate equipment for service provision.	3.5900
Limited skilled personnel to meet the rising needs of local people.	3.3200
Absence of accountability that creates uncertainty	2.8500
Poor of compliance of service delivery guidelines and misplaced priorities	3.5000
Lack of monitoring and evaluation mechanism	3.8000
Lack of database to consolidate all information needed for service delivery	3.4000
Incomprehensible documents for service	2.7200
Poor communication with communities being served	3.5800
Limited skilled personnel to meet the rising needs of local people	3.5600

From the findings in Table 4.7 above, the majority of the respondents agreed to a great extent ( $\geq 3.5$ ) that challenges of SCM practices experienced in the national

government of Kenya ministries in Ruiru Sub-County included lack of monitoring and evaluation mechanism (mean=3.80), inadequate equipment for service provision (mean=3.59), poor communication with communities being served (mean=3.58), limited skilled personnel to meet the rising needs of local people (mean=3.56), poor of compliance of service delivery guidelines and misplaced priorities (mean=3.50) respectively.

In addition, the majority of the respondents agreed to a moderate extent ( $\geq 2.5$ ) that challenges of SCM practices experienced in the national government of Kenya ministries in Ruiru sub-county included lack of finances to support provision of services (mean=3.41), lack of database to consolidate all information needed for service delivery (mean=3.40), limited skilled personnel to meet the rising needs of local people (mean=3.32), policy towards unemployment (mean=3.23), government overspending (Mean=3.15), economic growth challenges (mean=3.14), difficulty in getting the right service provider (mean=3.11), environmental regulation and protection (mean=2.99), absence of accountability that creates uncertainty (mean=2.85) and monetary policy (mean=2.80) respectively.

The findings implied that the national government of Kenya ministries in Ruiru Sub-County were faced by diverse challenges of SCMPs practices which greatly compromised the efficiency in their supply chain performance and their organizational competitiveness. The findings further indicated that the major challenges facing national government of Kenya ministries in Ruiru Sub-County were; lack of monitoring and evaluation mechanism, inadequate equipment for service provision, poor communication with communities being served, limited skilled personnel to meet the rising needs of local people, poor of compliance of service delivery guidelines and misplaced priorities, respectively.

#### **4.6 Relationship Between Supply Chain Management Practices and Competitiveness**

Multiple linear regression analysis was done to test the relationship between SCMPs and competitiveness in the national government of Kenya in Ruiru Sub-County and the following model was used.

$$\text{Com} = \beta_0 + \beta_1 \text{PC} + \beta_2 \text{SO} + \beta_3 \text{IS} + \beta_4 \text{SP} + \varepsilon.$$

Where: Com = competitiveness

y = Competitiveness

$\beta_0$  = Constant term

$\beta_1$  = Beta coefficients

PC = Planning and control

SO = Strategic outsourcing

IS = Information sharing

SP = Strategic partnership between SC partners

Table 4.8 below shows the results.

Table 4.8 Relationship Between Supply Chain Management Practices and Competitiveness.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796 <sup>a</sup>	0.633	0.594	0.30202
Model	Sum of Squares	Mean Square	F	Sig.
Regression	5.976	1.494	16.377	.000 <sup>a</sup>
Residual	3.466	.091		
Total	9.442			
Model	UC	SC	T Value	Sig.
	B	Beta		
(Constant)	6.165		8.746	.000
Planning and control	-.348	-.489	-4.289	.000
Strategic outsourcing	-.436	-.635	-5.187	.000
Information sharing	.711	.754	6.593	.000
Strategic partnership between SC partners	-.286	-.396	-3.420	.002

Analysis in Table 4.8 above shows that the coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variable)  $R^2$  was 63.3percent that is, SCMPs was planning and control, strategic outsourcing, information sharing and strategic partnership between SC, leaving 36.7 percent unexplained by other factors.

The overall significance value was 0.000 which was less than 0.05 thus the model is statistically significance in predicting relationship between SCMPs and

competitiveness in the national government of Kenya in Ruiru Sub-County. The estimated multiple linear regression was:

$$\text{Com} = 6.165 - 0.348\text{PC} - 0.436\text{SO} + 0.711\text{IS} - 0.286\text{SP}$$

(0.000)    (0.000)    (0.000)    (0.000)    (0.002)

Where constant of 6.165, shows that if planning and control, strategic outsourcing, information sharing and strategic partnership between SC were all zero, competitiveness would be 6.165. In addition, the study revealed that one unit change in planning and control resulted in 0.348 units decrease in competitiveness, one unit change in strategic outsourcing to change resulted in 0.436 units decrease in competitiveness, one unit change in information sharing resulted in 0.711 units increase in competitiveness while one unit change in strategic partnership resulted in 0.286 units decrease in competitiveness. Therefore, information sharing contribute most competitiveness in the national government of Ruiru Sub-County followed by strategic partnership between SC partners, planning and control and strategic outsourcing respectively. This further indicated that information sharing contribute most competitiveness in the national government of Kenya in Ruiru Sub-County while the other independent variables reduced competitiveness.



## **CHAPTER FIVE**

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

#### **5.1 Introduction**

This chapter presents summary, conclusion and recommendations of the study on SCMPs and competitiveness in the national government of Kenya: a case study of Ruiru Sub-County. Specifically the study was to establish SCMPs used by the national government of Kenya in Ruiru Sub-County; to determine the relationship between SCMPs and competitiveness in the national government of Kenya in Ruiru Sub-County; and to describe the challenges of SCMPs faced by the national government of Kenya in Ruiru Sub-County.

#### **5.2 Summary**

The study established that JIT as a SCMPs never adheres to all purchasing ethical issues before arriving at selection of suppliers as indicated by most (44 percent) of the respondents. However, 31 percent of the respondents indicated that JIT as SCMPs adheres to all purchasing ethical issues before arriving at selection of suppliers. Therefore, JIT as a SCMPs was not a common SCMPs adopted by the government ministries in Ruiru Sub-County towards achieving competitiveness.

From the findings, it was established that JIT as a SCMPs was used in SCM of national government ministries in Ruiru Sub-County to moderate extent as most (43 percent) of the respondents indicated while 28 percent said it did to a great extent. Thus, SCMPs such as JIT were not effectively adopted and implemented in the national government ministries in Ruiru Sub-County. The lack of comprehensive implementation of SCMPs greatly reduced the competitiveness in the national government of Kenya in Ruiru Sub-County as their SCs could not perform optimally.

In light of the findings, lack of information technology influenced SCM in the following ways misinformed advocacy groups, lack of clear definitions, incomparable environmental information and awareness of marketing and sales respectively. Therefore, lack of information technology negatively influenced SCM to a great extent as contemporary SC strategies arise from adoption of information technology.

The lack of adequate information technology infrastructure made SC not to perform optimally and minimize cost.

The study revealed that SCM influenced competitiveness in the national government ministries in Ruiru Sub-County to a moderate extent (40 percent), while 30 percent said it did to a large extent. Thus, SCM influenced competitiveness in the national government ministries in Ruiru Sub-County only to a moderate extent and, therefore not performing to its optimal capacity.

In light of the findings, the SCM performance measures used in government ministries in Ruiru Sub-County to a moderate extent included employee performance, financial performance, innovation and change and customer satisfaction respectively. Therefore, SCM performance measures in the national government ministries in Ruiru Sub-County were only applied to a limited scale and without their full application it remains difficult to continuously monitor and improve the SC performance.

Based on the findings various aspects of SCM among national government ministries in Ruiru Sub-County included quality, lead time, cost and flexibility respectively. The findings indicated that the application of SCMPs by the national government of Kenya in Ruiru Sub-County was inadequate as it did not spur the competitiveness of the national government ministries in terms of quality, lead time, cost and flexibility.

From the findings, it was established that various aspects of SCM related to competitiveness measures as used by national government ministries in Ruiru Sub-County included product competitiveness and price competitiveness respectively. This indicated that the competitiveness in the national government of Kenya in Ruiru Sub-County was only at average level and a lot of input in their SCM was required to achieve high level of competitiveness in terms of product and price competitiveness among the national government ministries of Kenya in Ruiru Sub-County.

In light of the findings, the majority of the respondents indicated to a moderate extent the important SCM goals used by their respective national government ministries in Ruiru Sub-County included planning and control, information sharing, strategic

partnership between SC partners, reverse logistics and strategic outsourcing respectively. Therefore, the most important SCMPs national government ministries in Ruiru Sub-County included planning and control, strategic partnership between SC partners, reverse logistics and strategic outsourcing respectively.

From the findings, it was established that the challenges of SCMPs experienced in the national government ministries in Ruiru Sub-County include; lack of monitoring and evaluation mechanism, inadequate equipment for service provision, poor communication with communities being served, limited skilled personnel to meet the rising needs of local people, poor of compliance of service delivery guidelines and misplaced priorities respectively.

In addition, other challenges of SCMPs experienced in the national government of Kenya ministries in Ruiru Sub-County include; lack of finances to support provision of services, lack of database to consolidate all information needed for service delivery, policy towards unemployment, government overspending, economic growth challenges, difficulty in getting the right service provider, environmental regulation and protection, absence of accountability that creates uncertainty and monetary policy respectively.

Therefore, the national government of Kenya ministries in Ruiru Sub-County were faced by diverse challenges of SCMPs which greatly compromised the efficiency in their SC performance and their organizational competitiveness. The findings further implied that the major challenges facing national government of Kenya ministries in Ruiru Sub-County were lack of monitoring and evaluation mechanism, inadequate equipment for service provision, poor communication with communities being served, limited skilled personnel to meet the rising needs of local people, poor of compliance of service delivery guidelines and misplaced priorities respectively.

From the regression analysis, the study established that SCMPs had significant influence on competitiveness of national government of Kenya ministries in Ruiru Sub-County. The study revealed that if all SCM practices (planning and control, strategic outsourcing, information sharing and strategic partnership between SC) were

rated as zero, competitiveness would be 6.165. The information sharing contribute most competitiveness in the national government of Kenya in Ruiru Sub-County while the other independent variables reduced competitiveness.

### **5.3 Conclusion**

The study concluded that Just In Time as a SCMP was not a common SCMPs adopted by the Government ministries in Ruiru Sub-County towards achieving competitiveness.

From the findings, it can be concluded that JIT as a SCMP was used in SCM of national government ministries in Ruiru Sub-County to moderate extent. Thus, SCMPs such as JIT were not effectively adopted and implemented in the national government ministries in Ruiru Sub-County. The lack of comprehensive implementation of SCMPs greatly reduced the competitiveness in the national government of Kenya in Ruiru Sub-County as their SC could not perform optimally.

In light of the findings, lack of information technology influenced SCM in the following ways; misinformed advocacy groups, lack of clear definitions, incomparable environmental information and awareness of marketing and sales respectively. This meant that lack of information technology negatively influenced SCM to a great extent as contemporary SC strategies arise from adoption of information technology. The lack of adequate information technology infrastructure made SC not to perform optimally and minimize cost.

The study concluded that SCM influenced competitiveness in the national government ministries in Ruiru Sub-County to a moderate extent.

In light of the findings, the SCM performance measures used in government ministries in Ruiru Sub-County to a moderate extent included; employee performance, financial performance, innovation and change and customer satisfaction respectively. This meant that SCM performance measures in the national government ministries in Ruiru Sub-County were only applied to a limited scale and without their

full application it remains difficult to continuously monitor and improve the SC performance.

Based on the findings, the various aspects of SCM among national government ministries in Ruiru Sub-County included quality, lead time, cost and flexibility respectively. The findings indicated that the application of SCMPs by the national government of Kenya in Ruiru Sub-County was inadequate as it did not spur the competitiveness of the national government ministries in terms of quality, lead time, cost and flexibility, respectively.

From the findings, it was concluded that the various aspects of SCM related to competitiveness measures as used by national government ministries in Ruiru Sub-County includes; product competitiveness and price competitiveness respectively. This shows that the competitiveness in the national government of Kenya in Ruiru Sub-County was only at average level and a lot of input in their SCM was required to achieve high level of competitiveness in terms of product and price competitiveness among the national government ministries of Kenya in Ruiru Sub-County.

In light of the findings, it can be concluded that the most important SCMPs practices national government ministries in Ruiru Sub-County included planning and control, strategic partnership between SC partners, reverse logistics and strategic outsourcing respectively.

From the findings, it can be concluded that the national government ministries in Ruiru Sub-County were faced by diverse challenges of SCMPs which greatly compromised the efficiency in their SC performance and their organizational competitiveness. The major challenges facing national government ministries in Ruiru Sub-County included lack of monitoring and evaluation mechanism, inadequate equipment for service provision, poor communication with communities being served, limited skilled personnel to meet the rising needs of local people, poor of compliance of service delivery guidelines and misplaced priorities respectively.

From the regression analysis, the study concluded that SCM practices had a significant influence on competitiveness of national government ministries in Ruiru Sub-County. The information sharing as a SCMP contributed the most to competitiveness of the national government in Ruiru Sub-County followed by strategic partnership between SC partners, planning and control and strategic outsourcing respectively.

#### **5.4 Recommendations**

The study revealed that lack of comprehensive implementation of SCMPs practices greatly reduced the competitiveness in the national government in Ruiru Sub-County as their SC could not perform optimally. The study recommends that the management of government ministries in Ruiru Sub-County should design a comprehensive SCM strategy to guide the adoption and effective implementation of best SCMPs in their respective ministries in Ruiru Sub-County.

In light of the findings, the SCM influenced competitiveness in the national government ministries in Ruiru Sub-County only to a moderate extent and, therefore not performing to its optimal capacity. The study recommends that the management of government ministries in Ruiru Sub-County should conduct regular in-service training among its SC employees to equip them with modern skill in SCM. This should be coupled with strict supervision of the SCM employees to ensure full compliance with best practices in SCM as well as taking disciplinary measures for the non performing SCM employees.

From the findings, the national government in Ruiru Sub-County was faced by diverse challenges of SCM practices which greatly compromised the efficiency in their SC performance and their organizational competitiveness. The study recommends that the management of government ministries in Ruiru Sub-County should invest heavily in the area of SCM to ensure the use of modern information technology in SC operations in order to mitigate and cope with the diverse challenges of SCMPs in the government ministries in Ruiru Sub-County.

### **5.5 Areas for Further Studies**

The study recommends that further study should be conducted on the SCMPs and competitiveness in the private firms in Kenya for comparison purposes and to allow for generalization of findings on SCMPs and competitiveness of firms in Kenya. A similar study should also be carried out on the relationship between SCM challenges and employee performance in humanitarian organizations in Kenya.

A similar study should also be conducted on relationship between SCM challenges and employee performance in humanitarian organizations in Kenya.

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## APPENDICES

### Appendix I: Letter of Introduction

Doris Kagendo Kimantiria  
University of Nairobi,  
School of Business,  
P.O Box 30197,  
Nairobi.

Dear Sir/Madam,

I am a Masters student at the University of Nairobi, School of Business. In partial fulfillment of the requirement for Master of Business Administration, I am conducting a survey on the SUPPLY CHAIN MANAGEMENT PRACTICES AS A SOURCE OF COMPETITIVENESS IN THE NATIONAL GOVERNMENT OF KENYA: A CASE STUDY OF RUIRU SUB-COUNTY.

I am glad to inform you that you have been selected to form part of the study. I would therefore kindly request you for assistance in completing the attached questionnaire which forms a major input of the research process. The information and data will be strictly be used for academic purposes only and strict confidence shall be observed on the same. Your co-operation will go a long way in ensuring the success of this project. I would like to thank you in advance for your time and consideration.

Yours Sincerely,

Doris Kagendo Kimantiria  
D61/62823/2010  
University of Nairobi

## Appendix II: Questionnaire

This questionnaire seeks to collect information on response by your organization to establish the critical success factors in supply chain management. Please provide the information frankly and honestly.

### SECTION A: GENERAL INFORMATION

#### DEMOGRAPHIC INFORMATION

1) What is your gender? (tick one)

Male  Female

2) Age(tick one)

20 -30 ( ) 31 -35 ( ) 36- 40 ( ) 41-45 ( ) 46-50 ( )  
21

3) What is your academic background

Diploma ( ) 1<sup>st</sup> Degree ( ) postgraduate ( ) PhD ( )

4) What is your position in the organization? (Please tick one)

i. Procurement officer [  ]

ii. Other government officer [  ]

5) How long have you worked for the national government ministries at Ruiru sub-county?

Less than 2 years ( ) 2 to 5 years ( ) 6 to 10 years ( ) Over 10 years ( )

**PART B: ESTABLISH SCM PRACTICES USED BY THE NATIONAL GOVERNMENT OF KENYA IN RUIRU SUB-COUNTY**

6) Do you think the just in time adheres to all purchasing ethical issues before arriving at selection of suppliers?

Yes [ ]                      No [ ]                      Not sure [ ]

7) To what extent, in your view is the application of just in time in supply chain management using Very low =1, Low =2, Moderate =3, High =4, Very high =5?

Very large extent [ ]

Large extent [ ]

Medium extent [ ]

Little extent [ ]

Very little extent [ ]

8) Lack of information technology has influence on supply chain management; rate them using the racket scale of 1-5 with Very low =1, Low =2, Moderate =3, High =4, Very high =5.

	1	2	3	4	5
Misinformed advocacy groups					
Lack of clear definitions					
Incomparable environmental information					
Awareness of marketing and sales					



**PART C: ESTABLISH THE RELATIONSHIP BETWEEN SCM PRACTICES AND COMPETITIVENESS IN THE NATIONAL GOVERNMENT IN RUIRU SUB-COUNTY.**

9) What extent has supply chain management influenced competitiveness in the national government ministries in Ruiru sub-county?

Totally agree [ ]    Agree [ ]    Not agree [ ]    Not sure [ ]

10) To what extent are the following supply chain management performance measures used in the organization? Rank by placing a tick in the appropriate place. 1= Least extent 2= Low extent, 3= Neutral, 4= Moderate extent and 5= Great extent

Description	1	2	3	4	5
Innovation and change					
Employee performance					
Customer satisfaction					
Operating efficiency					
Financial performance					

11) How do you rate the following when dealing with competitive strategies

Extremely Important 5. Very Important 4. Moderately Important 3. A Little Important 2. Not Important 1.

	5	4	3	2	1
Quality					
Lead Time					
Cost					
Flexibility					

12) How do you rate the following when dealing with competitiveness measures used by national government ministries in Ruiru sub-county

	5	4	3	2	1
Price competitiveness					
Product competitiveness					

13) How important are the following goals in your operations? Please rate them in order of their importance using the following scale 5. Extremely Important 4. Very Important 3. Moderately Important 2. A Little Important 1. Not Important

	5	4	3	2	1
Planning and control					
Strategic outsourcing					
Information sharing					
Strategic partnership between SC partners					
Reverse logistics					

**PART D. DESCRIBE THE CHALLENGES OF SCM PRACTICES FACED BY THE NATIONAL GOVERNMENT OF KENYA IN RUIRU SUB-COUNTY**

14) To what extent is each of the following challenges of supply chain management practices in Ruiru Sub-county? Use the following scale: No extent(1), Little extent, (2), Moderate extent(3), Large extent (4) and Very large extent(5)

Factors	1	2	3	4	5
Policy towards unemployment (minimum wage, unemployment benefits, grants)					
Environmental regulation and protection					
Consumer protection and competition regulation					
Economic growth challenges (overall; by industry sector)					
Monetary policy (interest rates control)					
Government overspending (overall level; specific spending priorities)					
Supply chain management practices sets in motion the entire procurement process of acquiring services in local government.					
supply chain management practices is one of the primary functions of procurement with a potential to contribute to the success of local government operations and improved service delivery					
supply chain management practices in facilitating an efficient and effective service delivery					
supply chain management practices drives different expected results which are different from business as usual such as reduction in the number of overall contract awards, understanding and managing total cost of ownership, more purchasing options					
Supply chain management practices facilitate efficient and effective service delivery in public sector organization.					

Supply chain management practices helps to achieve the maximum value for expenditures on services to be delivered.						
Corruption.						
Lack of finances to support provision of services.						
Difficulty in getting the right service provider						
Inadequate equipment for service provision.						
Poor communication with communities being served.						
Limited skilled personnel to meet the rising needs of local people.						
Absence of accountability that creates uncertainty						
Poor of compliance of service delivery guidelines and misplaced priorities.						
Lack of monitoring and evaluation mechanism.						
Lack of database to consolidate all information needed for service delivery.						
Incomprehensible documents for service.						
Poor communication with communities being served.						
Limited skilled personnel to meet the rising needs of local people.						

Thank you very much