ANALYSIS OF THE RELATIONSHIP BETWEEN PROCUREMENT BEST PRACTICES AND PROCUREMENT PERFORMANCE IN PUBLIC INSTITUTIONS IN KENYA



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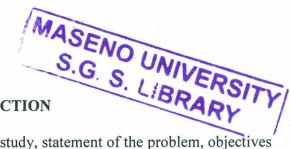
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According to the Kenya Economic Survey 2014 public institutions are the major contributors to the country economic growth. In recent time there has been reports of public sector facing challenges on procurement best practices for instance performance of public sector has been dwindling and this has been attributed to lack of procurement best practices. Studies in this direction for public institutions are lacking. The purpose of the study was to analyse the relationship between procurement best practices and procurement performance in Public Institutions. Specifically the study sought to establish the extent of procurement performance in Public Institutions, to examine the relationship between green purchasing, supplier partnering and procurement performance in Public Institutions. The study was guided by a conceptual framework where the independent variable was procurement best practices and the dependent variable procurement performance. The study was anchored on Network Theory. The design used in the research was descriptive survey. The Target population was 103 with a sample size of 78. Primary data used was collected via questionnaires. The data collected was analysed using descriptive statistics and correlational analysis. The instrument was found to be reliable as all the four scales average reliability values 0.88 exceeded the prescribed threshold of 0.7. The study revealed that procurement performance was moderate as evidenced by a mean (M = 3.16). The study also revealed that there was a significant and positive relationship between procurement performances. The highest correlation was that between compliance with green procurement policies and product quality with a coefficient of (r=0.716, p=.0.00) and the lowest being that between recycling of procured products and reduced lead time with a coefficient of (r=0.476, p=0.03). Moreover the study revealed that there was significant and positive relationship between procurement performance and supplier partnership. The highest correlation was that between focus on product quality and product quality with a coefficient of (r=0.816, p=0.01) and the lowest being that between practise partnership existence in design choices and cost reduction and saving with a coefficient of (r=0.472, p=0.01). These findings could provide valuable insight into how procurement activities in this institution should be conducted so as to achieve better purchasing performance and can also be used by suppliers as a source of information on handling the relationship with public universities. The study recommends that management of Public institutions should focus on its procurement activities and also increase their focus on green purchasing and supplier partnership.



CHAPTER ONE: INTRODUCTION

This chapter provides an overview of the background of the study, statement of the problem, objectives of the study, research questions, scope of the study, justification of the study and the conceptual framework adopted for the study. It introduces the main concepts; of procurement best practices and procurement performance.

1.1 Background of the Study.

Procurement practices are those managerial actions undertaken to improve performance of the integrated supply chain. According to Li et al (2006), procurement best practices have been identified as green purchasing, strategic supplier partnership, adoption of information communication technology The development of best practices blueprint that may be applied to all and purchasing ethics. organizations, irrespective of the contexts in which they operate has been quite a challenge. Indeed no such conclusive blue print may claim to be applicable in all environments or organizational operational contexts. This is because of the existence of a myriad of 'objective realities' and conceptual lenses from which different observers may perceive their own realities, even on issues that may rely on hard or empirical data (Erridge, 2001). As Turner (2011) posits, the adoption of procurement best practice is shifting away from traditional procurement practices and must therefore be approached from a 'value opportunity' standpoint rather than a process standpoint. There must be a shift away from the rudimentary procurement such as soliciting a minimum number of bids and selecting the cheapest one which as Turner (2011) suggests, carries risks which includes missed opportunities for maximum value.

Procurement best practices equivalent is therefore continuous and rapid movement as well as benchmarking, where an organization measures itself against other 'best-in-class' organizations (Guth, 2010). However, several characteristics of best practices for supplies management are identified across many high performing organizations. They include: Commitment to total quality management,

commitment to just in time, commitment to total cycle time reduction, long range strategic plans, supplier relationships/partnering, adoption of information communication technology, strategic cost management(green purchasing), training and professional development, service excellence, corporate social responsibility, learning, management and leadership (Arawati, 2011). For this study, the procurement best practices that were posited by Li et al (2006) will be adopted.

Procurement performance is the ability of an organization to fulfill its purchasing mission through sound management, strong governance and a persistent rededication to achieving results. Parasuraman (2002), proposed that firms delivering services must broaden their examination of productivity from the conventional company-oriented perspective to a dual company-customer perspective. This broadened approach can help reconcile conflicts or leverage synergies between improving service quality and boosting service productivity (Parasuraman, 2002). Organizations that have adopted best procurement practices are able to deliver their products and services. When defining procurement performance it is important to consider a wide variety of potential procurement performance measures. This research considers procurement performance relative to the competition from multiple organizational perspectives including Inventory control efficiency, Purchasing transparency, Products quality and reduced lead times. According to D' souza et al (2006) purchasing decision are not made by information on the label on green purchasing. Serman et al (2012) suggested that limited scope of the studies suggest further studies on green supply chain management and business process.

Nyaga *et al* (2010) Mutual trust is critical link that connect information sharing and quality information. Previous studies mix context. Resulting to lack of accurate information. In Shin collier, Wilson *et al*,(2000),PrassadaandTata (2000).One need to examine the role of strategic partnering in SCM process and link it with procurement performance. Devaraj*et al* (2007) and Smaro*et al* (2004) both focus on operation performance rather than the influence on adoption of procurement performance.

According to Holden2000) and Hosfede (1984)Armston and Sweeney (1994) Dubinskinsky *et al* (1991)Mc Donald to distinguish gift and bribe. Future research should concentrate on motives and altitudes of actors in the attempt to understand the reasoning to apply the ethical situations.

Nyaga *et al.* (2010) examined collaborative relationships in two separate studies using structural equation modelling: one study examined buyers' perceptions and the second study examined suppliers' perceptions. The two studies were then compared using invariance testing in order to determine economic and relational factors that drove satisfaction and performance from each party's perspective. Results showed that collaborative activities, such as information sharing, joint relationship effort, and dedicated investments lead to trust and commitment. Trust and commitment, in turn, lead to improved satisfaction and performance. The study concluded that efforts in supplier or buyer socialization yield better performance for either firm. Although mutual trust is the critical link that connects information sharing to information quality. Previous studies tend to mix one contest to another in a single study. Ignoring the diverse perspectives of each context. This result to lack of accuracy of information sharing.

Madhavaram and Hunt (2008); Hassanzadeh, and Jafarian, (2010) noted that procurement best practices are viewed as a strategic function working to improve the organization's profitability, reduce raw material prices and costs, and identifying better sources of supply. Other studies such as Liker, (2004); Hines and Taylor (2000); Lee, (2003) also expresses the objectives of best procurement practices as improving efficiency, quality and delivery performance of suppliers. Mark, Wilson and Ram (2009) investigated the implementation of lean procurement among small and medium sized enterprises. The above studies tacked strategic functioning, profitability, improved efficiency, and quality and lean procurement. The previous studies did not touch on green purchasing, supplier partnering on procurement performance which remains unknown.

The contribution of procurement best practices and procurement performance in public institution in Kenya is yet to realize its full potential in efficiency an effectiveness in procurement management as it procures services, goods and works. The purpose of the study is to analysis the relationship between procurement best practices and procurement performance in public institutions by establishing the relationship between green purchasing, supplier partnering, adoption of ICT and purchasing ethics on procurement performance.

1.2 Statement of the Problem

Performance of the public institutions has dwindled as reported by the Kenya Economic Survey from 53% in 2012 to 41% in 2014. This has caused a lot of worries as it is deemed to be the major contributor to the country's economic growth contributing up to 76% of the county's labor force seconded only by the private sector at 20%. In recent times there has been reports of the public institutions facing challenges on procurement and this has deterred their performance. One way to address this issue is to address the issue of procurement best practice as they are argued, accrue benefits directly to the bottom line of the organization. MASENO UNIVERSITY S.G. S. LIBRARY

1.3 Objectives of the Study

The main objective of the study was to analyse the relationship between procurement best practices and procurement performance of the Institution.

The specific objectives of the study were to:

- i. Establish the extent of procurement performance in the Institutions.
- ii. Examine the relationship between green purchasing and procurement performance in the Institution.
- iii. Evaluate the relationship between supplier partnering and procurement performance in the Institution.

4Research Questions

The study sought to answer the following questions.

What is the extent of procurement performance at the institution?

5 Research Hypothesis

There is no relationship between adoption of green purchasing and procurement performance in the institution.

There is no relationship between supplier partnering and procurement performance in the institution.

.6 Scope of the Study

The study was conducted at Maseno University which has campuses at Siriba, Kisumu town, Homa—Bay and college campus at Maseno. It lies in Nyanza province found in western Kenya on the western shores of Lake Victoria. This area lies approximately at the equator (00°). It is bordered by Luanda town to the North, Kakamega town to the North East, Kericho town to the East and Kisii town to the South. The specific location of the study area will be Maseno University college campus which is the main campus of this university. A sample population of 78 members of staff from Procurement, Accounts, ICT, Administration and Quality Assurance Departments were used. The study covered a period of ten years from 2005 to 2015 in order to analyse the trend of performance based on adapted practices. The main purpose of the study was to obtain an insight into the significance of adoption and embracing procurement best practices in public institutions, particularly Maseno University in order to propose further recommendation for the best practices. The limit of the scope was Maseno University because there was a general outcry from both students and suppliers that cannot get what they require like lecture halls, hostels, computers and teaching materials in time. The suppliers were also lamenting that when they supply they were not been paid as agreed and that there were delay in payments.

However, the study focused on procurement best practices adopted by the procurement department and other procurement stakeholders at Maseno University and explored the contributions of these practices to the overall corporate image and procurement performance of Public Institutions.

1.6 Significance of the Study

The findings of this study will be of great importance to various Purchasing stakeholders in Public Institutions. First, the study findings could provide valuable insight into how procurement activities in this institution should be conducted so as to achieve better purchasing performance. This would in turn help in adoption of other best practices that have not been embraced in this institution. The results can also be used by suppliers as a source of information on handling the relationship with public universities. It can also help to identify solutions to the challenges encountered in the implementation procurement best practices in Public Institutions. Academicians may use the results of this study to conduct further research.

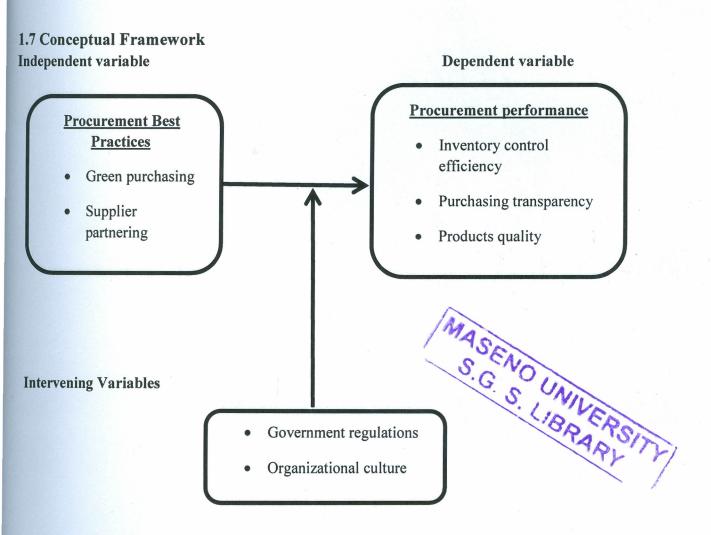


Figure 1.1: The relationship between procurement best practices and procurement performance

Source: Adapted from Li et al., (2006)

The relationship above shows the dependent variable, procurement performance as affected by the independent variable, procurement best practices which have the elements namely green purchasing and supplier partnering. The above independent variable elements are believed to have a direct relationship with procurement performance in Public Institutions procurement departments through inventory control efficiency, purchasing transparency, Product and service quality and reduction in lead time's .The government policy and organizational culture acts as intervening variables to procurement best practices and procurement performance relationship.

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CHAPTER TWO: LITERATURE REVIEW

This chapter reviews theoretical literature and empirical studies. It focuses on the theoretical foundations on which the study was built. It also explores comparative empirical literature, which helps to explain the gap which the study sought to address. The literature discussed is mainly on procurement best practices and its effects on organizational performance.

2.1 Theory of the study

The performance of a firm depends not only on how efficiently it cooperates with its direct partners, but also on how well these partners cooperate with their own business partners. Network theory can be used to provide a basis for the conceptual analysis of reciprocity (Oliver, 1990) in cooperative relationships. Here, the firm's continuous interaction with other players becomes an important factor in the development of new resources (Haakansson and Ford, 2002). Relationships combine their sources of two organizations to achieve more advantages than through individual efforts. Such a combination can be viewed as a quasi-organization. (Haakansson and Snehota, 1995). The value of a resource is based on its combination with other resources, which is why inter-organizational ties may become more important than possessing resources per se. Thus the resource structure determines the structure of the supply chain and becomes its motivating force.

The Network theory (NT) contributes profoundly to an understanding of the dynamics of interorganizational relations by emphasizing the importance of relationship between the parties, the buildup of trust through positive long-term cooperative relations and the mutual adaptation of routines and
systems through exchange processes. Through direct communication, the relationships convey a sense
of uniqueness, ultimately resulting in supply chains as customization to meet individual customer
requirements. The parties gradually build up mutual trust through the social exchange processes
(Johanson and Mattsson, 1987). Network Theory is descriptive in nature and has primarily been applied

in SCM to map activities, actors, and resources in a supply chain. The focus has been on developing long-term, trust based relationships between the supply chain members. Examples of issues include buyer-supplier relationships.

Resource Based Theory was developed by Birge Wenefeldt in 1984; it is also called the Resource Based view (RBV). It is a method of analysing and identifying a firm's strategic advantages based on examining its distinct combination of assets, skills, capabilities and intangibles as an organization. The RBV's underlying premise is that a firm differs in fundamental ways because each firm possesses a "unique" bundle of resources-tangible and intangible assets and organizational capabilities to make use of those assets. Each firm develops competencies from these resources, and when developed especially well, these become the source of the firm's competitive advantage (Pearce and Robinson, 2007).

Barney (1991) suggests that firms succeed through developing resources that provide unique sources of competitive advantage. These may include physical, financial, human, and organizational resources; and confer competitive advantages based on their value, rareness, uniqueness (inimitability), and embeddness in the organization fabric. Learned *et al.*, (1969) noted that the capability of an organization is its demonstrated and potential ability to accomplish against the opposition of circumstance or competition, whatever it sets out to do. Every organization has actual and potential strengths and weaknesses; it is important to try to determine what they are and to distinguish one from the other. Thus what a firm can do is not just a function of the opportunities it confronts; it also depends on what resources the organization can master. Learned *et al.* proposed that the real key to a company's success or even to its future development lies in its ability to find or create a competence that is truly distinctive. According to Su *et al.*, (2009) capabilities can't be bought; rather, they must be built; with internal capabilities and combined with external partnerships.

2.2 The Concept of Procurement Performance

The description of the concept of procurement performance has been varied as the number of different scholars in the field. Harland (2001) describes procurement process as managing business activities and relationships internally within an organization, with immediate suppliers, with first and second-tier suppliers and customers along the supply chain, and with the entire supply chain. On their part Scott and Westbrook (1991) describe procurement as the chain linking each element of the manufacturing and supply process from raw materials through to the end user, encompassing several organizational boundaries. Thus, according to this definition procurement encompasses the entire value chain and addresses materials and supply management from the extraction of raw materials to its end of useful life.

Other authorities have considered the procurement practices to be similar to the supply chain management practices which is the set of activities undertaken by an organization to promote effective management of its supply chain (Koh *et al.*, 2007); as the approaches applied in integration, managing and coordination of supply, demand and relationships in order to satisfy clients in effective way (Wong *et al.*, 2005); as tangible activities/technologies that have a relevant role in the collaboration of a focal firm with its suppliers and/or clients (Vaart and Donk, 2008); and as the approach to involve suppliers in decision making, encouraging information, sharing and looking for new ways to integrate upstream activities. As a consequence, it involves developing customer contacts by customer feedback to integrate the downstream activities and delivering orders directly to customers (Chow *et al.*, 2008).

2.3 Procurement Best Practices

The procurement best practices in general aim at improving value delivery to customers; relying on just-in-time system; eliminating waste; getting the involvement of all stakeholders in the value creation process as well as working closely with suppliers. According to Ireland and Webb(2007), procurement

practices continues to be adopted by organizations as the medium for creating and sustaining a competitive advantage and points out that such a displacement is understandable considering the potential benefits of a successful procurement management. These benefits attributed to procurement include inventory reduction, improved delivery service, and shorter product development cycles. They further observed that the objectives of supply chain management include focusing in satisfying end customers, to formulate and implement strategies based on capturing and retaining end-customer business and to manage the whole chain effectively and efficiently.

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According to Mehta (2004), the driving forces of procurement stem from two sources: external pressures and potential benefits from strategic supply chain alignment. The external pressures that will encourage adoption of an effective supply chain include advances in technology and increased customer demand across national borders; maintaining lower costs while meeting these diverse needs; and intensified competition utilizing relationships among vertically aligned firms. These pressures have begun shifting the focus of individual firms vying for market presence and power to supply chains. The second main driving force entails the potential benefits from successful supply chain collaboration. From this collaboration, increased inventory turnover, increased revenue, and cost reduction across the chain have been registered from those organizations that have adopted an effective SCM.

Procurement enables purchasers to buy goods and services through the use of various facilities in a variety of forms. For instance, through online tendering or e-tendering: tenders for contracts are made online, and this enhances participation among suppliers. E-procurement's potential has already been attested by a number of studies (Turban *et al*2000), and has attracted the attention of public sector bodies at local, national and international level. Above all, a government sees procurement as a good opportunity to enhance and improve efficiency in procurement procedures within the public sector bodies. These procedures are highly regulated, with specific rules for advertising procurement needs, invitations to tender and the awarding of contracts. As correctly highlighted by Kierkegaard (2006),

government procurement procedures could be guided by three main principles: all interested parties in all member states must have an equal opportunity to submit tenders, all enquiries must receive equal treatment in order to eliminate discrimination on the grounds of the nationality of the contractor or the origin of the goods/services and all tendering and award procedures must involve the application of objective criteria.

Procurement best practices are those managerial actions undertaken to improve performance of the integrated supply chain. According to Li *et al.*, (2006), procurement best practices have been identified as green purchasing, strategic supplier partnership, adoption of information communication technology and purchasing ethics. The public sector procurement mainly comprises procurements by government or state owned or controlled institutions and corporations. Public procurement consists of public sector supply chains and multi-level network which can be assessed at the central, province, district and local authority. The difference between these levels of procurement usually depend on value and volume and annual goods and service procured (Ellinger, 2006). In addition, public sector procurement mainly focuses on different areas. This differs from sector to sector and industry to industry, but they are standardized and regulated by one body. For instance, in Kenya, all public procurements are regulated by Public Procurement Oversight Authority (PPOA).

According to Ochieng and Muehle (2012), the Public Procurement System in Kenya has evolved from a crude system with no regulations to an orderly legally regulated procurement system. Government's Procurement system was originally contained in the Supplies Manual of 1978; The Director of Government Supply Services was responsible for ensuring the proper observance of the provisions of the Manual (PPOA 2010). All the aforesaid reform initiatives were geared towards improving the public procurement system by enhancing accountability and transparency with the aim of achieving value for money, and attracting investments by creating sound business climate. These reforms have ensured fairness and competition among suppliers of goods, works and services, thereby restoring the confidence of Kenyans in the public procurement process while at the same time ensuring that the Government gets the best value for its money (PPOA, 2007). This led to the creation of the Public

Procurement Oversight Authority (PPOA) to oversee public procurement system with its principal functions of ensuring that the public procurement law is complied with and capacity of the function among stakeholders is enhanced (PPOA, 2010).

Procurement best practices is concerned with the management of a significant proportion of the non-pay expenditure and ensuring that the best possible value for money is obtained when committing organization expenditure. The procurement best practices is concerned with obtaining the required goods and services from appropriate suppliers to enable the institution to meet its strategic objectives in an economic, efficient and effective manner. The green purchasing indicators will be measured through timeliness, process efficiency, process effectiveness, integration with user and adhering to green procurement policies. Supply performance will be operationalized through reduction in lead time, product quality, The use of ICT in procurement system make the operational processes of the buyer organization more effective but also could make the order fulfillment process of the supplier organization more efficient and improve partner relationship management making organizational achieve high returns.

Procurement best practice will seek to lead to improvement in quality and reduction in cost it improves proper allocation of firm resources, high quality and timely procurement and budgetary saving and increase profitability in the organization. The best Organization performance will be measured by determining quality, productivity, market share, increase in customer base, profitability, return on equity, customer satisfaction, management efficiency and increase in branch network.

2.3.1 Green Purchasing

Green purchasing is the practice of purchasing environmentally preferable products and services, which are products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. Such products or services may include, but are not limited to, those which contain recycled content, minimize waste, conserve energy or water, and reduce the amount of toxins disposed of or consumed (Ochoa & Era menger,

2003). Organizations recognize that there are a large number of consumers with a broad spectrum of goods and services. Every purchase has an environmental impact resulting from the combined effect of a product's manufacture, delivery, use, and disposition.

Leading companies that decide to go along with green procurement activities are experiencing tangible benefits. Green procurement can create value through increased overall cost efficiency, enhanced reputation and market share, and reduced environmental risks and liabilities. These companies get economic benefits by reducing supplier-generated wastes and surpluses, companies decrease handling expenses and risks associated with waste disposal (Holt and Kockelbergh, 2003). In addition, a supplier's savings from improved efficiencies may be passed along to buyers in the form of reduced prices. Competitive advantage is also acquired through innovation. Efficient production may be enhanced through suppliers' use of cleaner technologies, process innovation, and waste reduction (Holt and Kockelbergh, 2003). This is especially true when suppliers and customers work together to find new ideas. Companies get improved public image by adopting green procurement. Greening its suppliers can contribute to a company's overall reputation among customers, investors, employees, and other stakeholders (Khiewnavawongsa and Schmidt, 2008). Some of these tangible benefits include cost avoidance, savings from conserving energy, water, fuel and other resources; easier compliance with environmental regulations; demonstration of due diligence; reduced risk of accidents, reduced liability and lower health and safety costs; support of environmental/sustainability strategy and vision and improved image.

Choi and Zhang. (2011) conducted a study on green logistics and business performance in China. They found out that some organizations have a match between environmental considerations and profitability. Otago (2009) argued in his findings on green supply management that GSCM helps reduce the ecological impacts of industrial activities thereby enhancing environmental performance.

Green et al. (2012) developed a GSCM model focusing on GSCM practices implemented by

manufacturing organizations. They wanted see whether the adoption of GSCM practices would improve environmental performance. In their findings, it was evident that GSCM had a positive contribution to environmental performance.

D'Souza *et al.*(2006) green label do affect consumer decision to purchase green. Consumers consider the information given in label as inaccurate thus it does not make purchasing decisions. Consumers who are environmental conscious are more likely to purchase green products. Hence there is need for further research due to the sample used in the research was not equally distributed since the majority was Newzel and European. The survey used single item questions which cannot be very reliable.

Semanet al. (2012), Liu et al. (2011) in their study of green supply chain management in China found out a positive relationship between purchasing practices and environmental performances in all the three cases they studied. In these studies, they found out that market actor-oriented models are more sustainable for enhancing GSCM practices than regulation-oriented models as they are based on mutual communications and cooperation among the core stakeholders. They suggested provision of more technical supports and application of market mechanisms other than the mandatory regulations in achieving GSCM. They further suggested production of environmentally friendly products through joint research and making it a requirement for suppliers to satisfy higher environmental standards as strategies for improving the involvement of external green supply chain management practices. It was noted that in all cases, companies entirely focus on the internally proactive environmental management activities because the external part is not implementable. Due to limited scope of their studies, they suggested further studies on interactions between GSCM practices and financial performance, business process and client services and dissemination of successful GSCM practices.

Hsu and Hu (2008) in their study on Green supply chain management in the electronic industry found out that establishment of an environmental database of products, asking for product testing report and top management support; GSCM practices can be attributed to environmental performance. In a study

conducted by Chien and Shih (2007) on implementation of green supply chain management practices in the electrical and electronic industry and their relation to organizational performances, it was evident that green procurement and green manufacturing can generated favourable environmental performance.

2.3.2 Supplier Partnering

This is the relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits. Supply partnership emphasizes direct, long-term association and encourages mutual planning and problem solving efforts (Ragatzet al., 1997). Such supply partnerships are entered into to promote shared benefits among the parties and ongoing participation in one or more keys strategic areas such as technology, products, and markets .Strategic partnerships with suppliers enable organizations to work more effectively with a few important suppliers who are willing to share responsibility for the success of the products. Suppliers participating early in the product-design process can offer more cost effective design choices, help select the best components and technologies, and help in design assessment. Strategically aligned organizations can work closely together and eliminate wasteful time and effort. An effective supplier partnership can be a critical component of a leading edge supply chain (Griffith & Harvey, 2001).

Supply partnership is viewed as the firm's ability to coordinate and integrate resources with their respective partners. Griffith and Harvey (2001), considered the ability to coordinate interorganizational relationships effectively as one of the important resources of the firms. Wu (2006), viewed SRP as one of the key supply chain capability and refer Suppliers partnership to the ability in coordinating the Supply Relationship transaction-related activities. These capabilities improve operational efficiency and performance between the supply chain relationships. Similarly, supply chain leaders viewed the ability to integrate strategies in an effort to jointly execute a collective activity as an important capability (Grant, 1996). Adopting early supplier involvement, operational activities, such as product development projects, can offer more cost effective design choices, and improved product

quality and reduction in lead time (Tan et al., 2002). Through strategic suppler relationship, organizations can work closely with suppliers who can share responsibility for the success of the products (Li et al., 2005). A result of increasing reliance on suppliers has been that shortcomings in supplier performance and/or competency may present buying firms with problems such as missed shipping dates and inferior quality levels. For other companies however, superior supplier performance or capability may lead to superior quality and/or rapid integration of the latest technological breakthrough into the buying firm's own products through early supplier involvement (Ragatzet al., 1997).

Nyagaet al. (2010) examined collaborative relationships in two separate studies using structural equation modelling: one study examined buyers' perceptions and the second study examined suppliers' perceptions. The two studies were then compared using invariance testing in order to determine economic and relational factors that drove satisfaction and performance from each party's perspective. Results showed that collaborative activities, such as information sharing, joint relationship effort, and dedicated investments lead to trust and commitment. Trust and commitment, in turn, lead to improved satisfaction and performance. The study concluded that efforts in supplier or buyer socialization yield better performance for either firm. Although mutual trust is the critical link that connects information sharing to information quality. Previous studies tend to mix one contest to another in a single study. Ignoring the diverse perspectives of each context. This result to lack of accuracy of information sharing.

In a study of 200 manufacturing plants in Italy, Danese and Romano (2011) investigated whether there are synergies that a firm could or should exploit by simultaneously implementing customer and supplier integration. In particular, it analysed the impact of customer integration on efficiency, and the moderating role of supplier integration. Findings revealed that Supplier integration positively moderates the relationship between customer integration and efficiency, whereas general customer integration does not positively impact on efficiency. It was also found that, when supplier integration is at a low level, customer integration can even produce a reduction in efficiency. The study concluded

that supplier integration amplifies the relationship between customer integration and performance of the manufacturing firms.

In another study investigating the relationship between the dimensions of supply chain flexibility and firm performance in a sample of automotive suppliers, Sanchez and Perez (2006) conducted an empirical survey of a representative sample of 126 Spanish automotive suppliers during the months of September and October, 2003. A positive relation between a superior performance in flexibility capabilities and firm performance was revealed, although flexibility dimensions were found not equally important for firm performance. The study concluded that flexibility capabilities are enhanced in supply chains with higher environmental uncertainty, technological complexity, and mutual understanding, but with lower interdependence among the agents involved in the supply chain. On the other hand, the results showed that companies focus on flexibility capabilities at the shop floor level more than flexibility capabilities at the customer-supplier level. The study concluded that aggregate flexibility capabilities are more positively related to firm performance than basic flexibility capabilities.

Villena*et al.* (2011), in a sample survey of firms in Spain, evaluated and confirmed that building social capital in a collaborative Buyer –Supplier relationships (BSR) positively affects buyer performance, but holds that if taken to an extreme it can reduce the buyer's ability to be objective and make effective decisions as well as increase the supplier's opportunistic behaviour leading to ineffective performance.

An empirical study on the multidimensional relationships between supplier management practices and firm operational performance was carried out by Prajogo (2012). It focused on three supplier management practices, namely strategic long-term relationship, and logistics integration, and tested their effects on four operations performance measures, namely quality, delivery, flexibility, and cost. Data was collected from a sample of 232 manufacturing firms in Australia to conduct the study. The results showed that different supplier management practices have different unique effects on different operations performance measures. Supplier assessment has a positive relationship with quality

performance. Both strategic long-term relationship and logistics integration have positive relationships with delivery, flexibility, and cost performance.

A survey conducted on the role of supplier development in the context of buyer—supplier performance from a buying firm's perspective carried out by Humphrey *et al.* (2003) on 142 electronic manufacturing companies in Hong Kong. Correlation analysis indicated that transaction-specific supplier development and its infrastructure factors significantly correlated with the perceived buyer-supplier performance outcomes. Hierarchical multiple regression analyses suggested that transaction-specific supplier development, trust, supplier strategic objectives and effective communications significantly contributed to the prediction of buyer—supplier performance improvement.

In another study, Kyung *et al.* (2010) collected data from sample buyers responsible for supplier relationships in a Korean telecommunication service provider and from their partners. The results showed that switching costs and inter-organizational trust are significant determinants of cooperation for buyers; technological uncertainty and the reciprocity of the relationship are significant determinants for the suppliers. In both sample sets, goal consistency significantly affects inter-firm cooperation. This study limited itself to influences on buyer-supplier relationship establishment from the buyer's perspectives.

Evidence was provided on how characteristics of relationships change when relationships develop over time. Majolein (2010) did a comprehensive survey among 238 Dutch purchasing professionals about this. The results confirm the hypotheses, which stem from the extant literature about organizational dependence and commitment. A notable finding was that the buyer perceives to be dependent on the supplier, even in a desirable relationship.

An examination of the characteristics of buyer-supplier relationship dissolution in China found that it is common in China for relationships to have a transferable "energy" after the dissolution of a relationship due to the guanxi that exists between individuals prior to dissolution. It is also common for

dysfunctional relationships to "fade away" so as not to lose "face" for a business partner or damage any guanxi developed by abruptly ending relations. It was also discovered that a characteristic of dissolution in China is the involvement of a third-party (an individual who introduced subsequent business partners), who would often then play an active role in the dissolution of the relationship. This study was by Pressey and Qui (2007).

Wagner (2006) examined in the UK the relationship between supplier development, improvements and the support of the customer firm's competitive strategy with the resource-based view and the relational view as theoretical explanatory perspectives. The results showed that appropriate supplier development activities substantially back up the customer firm's differentiation as well as cost leadership strategy.

A Study by Avittahuret al. (2007) based on empirical data collected from a sample of U.S. manufacturing plants operating in India and their small suppliers found that while globalization is causing hundreds of multinational firms from developed countries to locate manufacturing facilities in developing countries such as China and India, the supply chain environment in China and India is different from domestic supply chains environments familiar to U.S. manufacturers venturing to such countries. For global ventures of multinationals to succeed, multinational firms must strive to understand the supply environment and practices in countries such as China and India.

Paulrajet al. (2008) sought investigated the antecedents and performance outcomes of interorganizational communication. Specifically, inter-organizational communication is proposed as a
relational competency that may yield strategic advantages for supply chain partners. Using structural
equation modelling, they empirically tested a number of hypothesized relationships based on a sample
of over 200 United States firms. The results provided strong support for the notion of interorganizational communication as a relational competency that enhances buyers' and suppliers'
performance.

In another study, theoretical models of group social conduits were applied and a model that posits the impact of formal and informal socialization processes on the creation of relational capital between buyers and suppliers developed. Results from the study of 111 manufacturing organizations in the United Kingdom by Cousins *et al.* (2006) suggest that informal socialization processes are important in the creation of relational capital, which in turn can lead to improved supplier relationship outcomes. Formal bridging socialization appears to play a lesser role in deriving these benefits. The study concluded that formal socialization doesn't improve performance as much as informal socialization.

Cousins and Menguc (2006) proposed and tested a model on how buyers can use the concepts of supply chain integration and socialization to achieve improved supplier communication and operational performance, and therefore, to improve the buyer's perceived level of the supplier's contractual conformance. The findings revealed that socialization is essential for the development of any significant business relationship and the enhancement of a supply integration strategy. Here socialization was proved supporting of supplier contractual performance. In summary, the studies above addressed various issues on Procurement best practices in isolation and to show the composite relationship between procurement best practices and performance in their analysis. Whereas, Choi and Zhang. (2011) conducted a study on green logistics and business performance in China, Green *et al.* (2012) developed a GSCM model focusing on GSCM practices implemented by manufacturing organizations. Hsu and Hu (2008) studied Green supply chain management in the electronic industry in China.

Danese and Romano (2011) investigated the synergies that a firm could exploit by simultaneously implementing customer and supplier integration. Villena*et al.* (2011) on the other hand evaluated and confirmed that building social capital in a collaborative Buyer –Supplier relationships. This study did not endeavour to link supplier relationships with procurement performance as in the case of this study Villena*et al.*, (2011), on the other hand in a sample survey of firms in Spain, evaluated and confirmed that building social capital in a collaborative Buyer –Supplier relationships positively affects buyer

performance. This study however was limited to buyer performance whose constructs are different from procurement performance, which is the main focus of this study. Wagner (2006) merely examined in the UK the relationship between supplier development improvements and the support of the customer firm's competitive strategy with the resource-based view and the relational view as theoretical explanatory perspectives. This scholar however did not try to find a link between supplier development and performance. The works above are more inclined towards the content of procurement best practices rather than its relationship with procurement performance effect. The studies are inconclusive in the way they address the content of procurement best practices and the joint relation of the elements of procurement best practices and procurement performance. It is also evident that the above reviewed studies were done in developed countries like China, India, Spain and UK and their results may not be applicable in the African context particularly Kenya therefore justifying the need for this study.

Strategic supplier partnering identifies optimum practices that facilitates supply chain process alignment and integration in order to further expedite collaboration, it is necessary to implement the latest collaborative information that drive efficiencies through performance and quality through supply chain. (Robinson & Malhotra 2005) Several research suggest that effective SCM practices has a direct impact on the overall financial and marketing performance. Of an organisation. (Shin, Collier & Wilson 2000, Prasad and Tata 2000) In fact SCM practices are expected to increase organisation market share and return on investment. (Shin et al., 2000, Prasad and Tata 2000) and improve overall competitive position. Yet very few have examined the role of strategic supply partnering in supply chain management process and linked it with the procurement performance.

2.4 Procurement Best practices and procurement performance

Procurement performance is the quantitative assessment of the degree to which the procurement function and those employed therein achieve the general or the specific objectives assigned to them (Lyson, 2000). Procurement performance is the extent to which the procurement process is achieving its objectives. Process performance measurement focuses on the concept of process capability and

maturity. Organizations have used capability maturity models to assess measure and improve their organizational critical core process such as software development and project management (Garret & Rendon, 2005). Process capability in these models is defined as inherent ability of a process to produce planned results (Ahern *et al.*, 2001). Procurement performance is also indicated by how well a system supports procurement needs of the organization .Quality of the procurement process can be one of the key performance indicators which can be measured by the proportion of business orders ejected or returned by the user (Subramaniam & Shaw, 2002). Similarly, the quality of systems is measured by looking at system availability or responsiveness and resolution of the technical issues.

Procurement activities aim at anticipating requirement, sourcing, obtaining supplies, moving supplies into the organization, and monitoring the status of supplies as a current asset (Leenders and Fearon, 2000). Improvement in adoption of ICT in procurement processes in business to business (B2B) markets lower the costs incurred in the identification and subsequent selection of the best suppliers, increase the value of purchases in terms of their price-quality relationship, and lower transaction costs associated with greater process efficiency, improving supply chain management an organizational performance (Hardaker & Graham, 2000;).

Lancioni, (2000) revealed that the importance of Information communication Technology in procurement improve employees productivity, increase real time response, influence achievement of lean procurement, enhance procurement service delivery and improve procurement efficiency attaining overall organizational performance. Effective procurement ethics offers a high level transparency, accountability and value for money. The principle aim of procurement should be to obtain goods and services of the right quality in the right quantity from the right source, delivered to the right place and at the least cost and price (Lyson, 2000). Successful and efficient procurement practices are those that meet the need of customer's achieve optimum condition and value in regard to allocating of scarce resources (Ntayi, 2009).

The practice needs a labour force with effective management skills that develop clear and professional specifications with full knowledge of a competitive process negotiation and monitoring skill. Hunja (2003), posited that procurement system adhere to purchasing ethics ensure successful quality and service delivery to stakeholders. The sound practices demand that those responsible for implementing procurement should ensure that the objectives are clear and that quality is sustained (Walker & Sidwell, 1996).

Saini (2010) examined unethical purchasing practices from the perspective of buyer–supplier relationships. Based on a review of the inter-organizational literature and qualitative data from in-depth interviews with purchase managers from diverse industries, a conceptual framework was proposed, and theoretical arguments leading to propositions were presented. Taking into consideration the presence or absence of an explicit or implicit company policy sanctioning ethically questionable activities, unethical purchasing practices were conceptualized as a three-tiered set. Three broad themes emerged from the analysis toward explaining purchasing ethics from a buyer–seller perspective: Inter-organizational power issues, Inter-organizational relational issues, and Inter- personal relational issues.

A case study by Bell *et al.*, (2002) examined the deteriorating relationship between two international high-tech firms was carried out Respondents were surveyed from the supplier firm to identify major elements that reduced the suppliers trust in its customer, as an indicator of practice of ethics, using the dimensions of trust identified by Mayer *et al.* (1995). While violations of ability, integrity, and benevolence all contributed to trust reduction, early violations of trustee benevolence contributed importantly to trust deterioration. The supplier and customer would likely differ in their opinion of whether the customer was acting ethically. The researchers recommended that scholars need to examine how many principles can be violated before trust is eliminated, and whether any of the principles are particularly salient in business relationships.

From the review of the literature, studies have focus on procurement best practices. Madhavaram and Hunt (2008); Hassanzadeh, and Jafarian, (2010) noted that procurement best practices are viewed as a strategic function working to improve the organization's profitability, reduce raw material prices and costs, and identifying better sources of supply. Other studies such as Liker, (2004); Hines and Taylor (2000); Lee, (2003) also expresses the objectives of best procurement practices as improving efficiency, quality and delivery performance of suppliers. Mark, Wilson and Ram (2009) investigated the implementation of lean procurement among small and medium sized enterprises. The above studies tacked strategic functioning, profitability, improved efficiency, and quality and lean procurement. The previous studies did not touch on green purchasing, supplier partnering on procurement performance which remains unknown.

CHAPTER THREE: RESEARCH METHODOLOGY

This chapter provides an overview of the methods used to collect and process data. It gives the research design the sample selection methods, size, and data processing.

3.1 Research Design

The study utilized descriptive survey design. A descriptive research design determines and reports the way things are (Mugenda & Mugenda, 2003). The design was chosen since it portrays the characteristics of a population fully (Chandran, 2004). Creswell (2003) observes that a descriptive research design is used when data are collected to describe persons, organizations, settings or phenomena. The design also has enough provision for protection of bias and maximized reliability (Kothari, 2008).

3.2 Study Area

The study was conducted in Maseno University which has campuses at Siriba, Kisumu town, Homa – Bay and college campus at Maseno. It lies in Nyanza province found in western Kenya on the western shores of Lake Victoria. This area lies approximately at the equator (00°). It is bordered by Luanda town to the North, Kakamega town to the North East, Kericho town to the East and Kisii town to the South. The specific location of the study area will be Maseno University college campus which is the main campus of this university.

3.3 The Target Population

The target population for the study was 103 staff members (from Maseno University registry). That is, the Procurement department, Administration, Accounts department, Quality assurance who are concerned with the quality standards of goods procured and the ICT department responsible for integrating information communication technology into the procurement operations at Maseno University. The study employed proportionate stratified sampling technique to gather data.

3.4Sampling

3.4.1Sample size

The sample was done according to Isreal 1992 sample and sampling technique table of sample size. The sample size is 78.

Table 1.1: Sampling Technique/Sampling Framework.

Department(Stratum)	Target	Sample
	Population	Population
Procurement	14	11
Accounts	55	42
ICT	10	7
Quality assurance	4	3
Administration	20	15
Total	103	78

Source: MSU, 2015

3.4.2 Sampling Design and Procedure

Stratified proportionate random sampling technique was used to select the sample. According to Cooper and Schindler (2008), stratified proportionate random sampling technique produce estimates of overall population parameters with greater precision and ensures a more representative sample is derived from a relatively homogeneous population. Stratification aims to reduce standard error by providing some controversial variance. According to Cooper and Schindler (2008), random frequently minimizes the sampling error in the population. This in turn increases the precision of any estimation methods used.

3.5 Data collection Methods.

3.5.1 Data Type and Sources

Primary data were collected for this study. Primary data was obtained through structured questionnaire.

3.5.2 Data Collection Procedure

Primary data was collected using questionnaires. The respondents were assured of confidentiality and the responses were to be used for academic purpose only.

3.5.3 Data collection Instrument

Primary data was collected using a semi structured questionnaire. Closed ended questions were used in order to standardize the responses and save on the respondents' time taken to fill in the questionnaire. The researcher exercised care and control to ensure all questionnaires issued to the respondents are received.

3.5.4 Reliability of Data collection instrument

A pilot study on ten employees of Maseno form the finance department was conducted to allow for pretesting of the research instrument. According to Connelly (2008) pilot study sample should be 10% of the sample projected for the larger parent study. The reliability of the questionnaire was evaluated through Cronbach's Alpha which measures the internal consistency. The Alpha measures internal consistency by establishing if certain item measures the same construct. Cronbach's Alpha was established for every objective in order to determine if each scale (objective) would produce consistent results should the research be done later on. The findings of the pilot study showed that all the four scales were reliable as their average reliability values 0.88 exceeded the prescribed threshold of 0.7 (Mugenda & Mugenda, 2003).

3.5.5 Validity of Data collected instrument

According to Mugenda and Mugenda (1999), validity is the degree to which results obtained from the analysis of the data actually represent the phenomenon under study. It is the degree to which a test measures what it is intended to measure; a test is valid for a particular purpose and for a particular group (Kothari, 2000). To establish the validity of the research instrument, the researcher sought opinions of experts in the area of procurement especially the procurement officer of the university and supervisors. This facilitated the necessary revision and modification of the research instrument thereby enhancing validity. The clarity of the instrument items to the respondents was established so as to enhance the instrument's validity.

3.6 Data Analysis and presentation

The collected data was processed and organized by first sorting it out to ensure consistency, exhaustiveness and completeness in information required for statistical analysis. This involved coding the responses and tabulating the data.

The study utilized descriptive statistics and correlational analysis. Correlational analysis helped to obtain a measure of the degree of association of the two variables. Correctional analysis was used to analyse the relationship between procurement best practices and procurement performance of Public Institutions.



CHAPTER FOUR: RESULTS AND DISCUSSIONS

Introduction

This chapter presents discussion of results based on the analysed general information of the respondents and the study objectives.

The collected data was edited and cleaned for completeness and consistency in preparation for coding.

Once coded, the data was keyed into the Statistical Package for Social Sciences (SPSS) for analysis.

Descriptive statistics were used to analyse the data. Correlation analysis was used to test the relationship between the variables under study in relation to the objectives of the study. A total of 78 questionnaires were administered. The questionnaires contained questions that addressed the objectives of the study. The objectives of the study were; to establish the extent of procurement performance of Public Institutions, and to evaluate the relationship between supplier partnering and procurement performance of Public Institutions

Table 4. 1: Response Rate

Response rate	Frequency	Percentage
Completed	76	97.44
Unreturned	2	2.56
Total	78	100

Source: Research Data (2015)

The study managed to obtain 76 completed questionnaires representing 97.44% response rate. This response was adequate to allow the researcher to continue with the analysis.

4.2 Background Information

This section sought to establish the general information of the respondents based on demographic factors such as level of education, designation and years of service of the respondents in their respective departments.

4.2.1 Level of Education

The study sought to establish the level of education of the respondents.

Table 4. 2: Level of education

	Frequency	Percent
Certificate level	11	14.5
Diploma Level	30	39.5
Degree	33	43.4
Post Graduate	2	2.6
Total	76	100

Source: Research Data (2015)

The study established that most of the respondents were graduates 33 (43.4%), followed by diploma certificate holders at 30 (39.5%), then KCSE certificate holders at 11 (14.5%) and lastly post graduates holders at 2 (2.6%). This indicates that most of the respondent who participated in this study were professional in their respective field of operation. This indicates that majority of the respondents were educated and could indicate the information required by the study .This implied that most person had attained a level sufficient favourable their comprehension of antecedents to effective management of procurement functions.

4.2.2 Designation of the Respondents

The study also sought to know the designation of the respondents and established that most of the respondents were finance officers, procurement officers, quality managers, ICT officers, administrators among others. All the respondents shown in the table 4.4 have knowledge of best practices and procurement performance. The respondents are deemed to have knowledge of best practices and

procurement performance of the institution. This gave the implication that the majority were able with adequate designation authority to direct key decisions regarding matters of procurement in the public institution.

4.2.3 Years of experience in the department

The study further sought to establish the years of experience in the department of the respondents and the results are as shown in table 5 below.

Table 4. 3: Years of experience in the department

Period (Years)	Frequency	Percent
1-3 Years	18	23.7
4-6 Years	19	25
7-9 Years	5	6.6
Above 10 years	34	44.7
Total	76	100

Source; Research Data (2015)

From the findings ,majority of the respondents 34 (44.7%) had worked in their respective departments for above ten years, followed by 19(25.0%)of the respondents who hadexperienceof4-6years in their departments, then 18 (23.7%) of the respondents having experience of 1-3 year in their current and lastly 5(6.6%) having worked in their current department for 7-9 years. This show that the study got information from people of diverse experience and also implies that majority of the respondents had experiences on what were the procurement best practices and organizations performance. This gave the implication that the majority were able with enough professional authority to direct key decisions regarding matters of procurement in the public institution.

4.3 Extent of Procurement performance.

In this section, the study sought to know how the respondents rated the procurement performance in the institutions. Different parameters were used to measure procurement performance. The procurement

performances Parameters were rated on a Likert scale of 1-5 where: 1= No Extent; 2= Little Extent; 3= Moderate Extent; 4= Great Extent; 5=Very Great Extent. The results of the study are as shown in the table 5 below.

Table 4. 4: Extent of Procurement performance

Performance measure	N	Mean
Supplier Performance	76	3.41
Inventory Control Efficiency	76	3.21
Product Quality	76	3.16
Cost reduction and saving	76	3.05
Reduced Lead Time	76	2.96
Overall Mean	76	3.16

Source: Research data (2015)

The study established that procurement performance in the institution was rated to be doing well to a moderate extent as evidenced by an overall mean of (M = 3.16, SD = 1.171). The institution was rated to be performing well on supplier performance to a moderate extent with a mean of (M = 3.41, SD = 1.37) followed by inventory control efficiency to a moderate extent with a mean of (M = 3.21, SD = 1.111) and then product quality also to a moderate extent with a mean of (M = 3.16, SD = 1.212), cost reduction and saving to a moderate extent with a mean of (M = 3.05, SD = 1.130), and lastly reduced lead time also to a moderate extent with a mean of (M = 3.16, SD = 1.038).

4.4 Extent of Green Purchasing

In this section, the study sought to know how the respondents rated the application of green purchasing practises in the institution. Different parameters were used to measure the application. The procurement performance Parameters were rated on a Likert scale of 1-5 where: 1= No Extent; 2 = Little Extent; 3 = Moderate Extent; 4= Great Extent; 5=Very Great Extent. The results of the study are as shown in the table 6 below.

 Table 4. 5: Extent of green purchasing

Green Purchasing Measures	N	Mean	
Timeliness in Green Purchasing Process	76	2.89	

	2.67
76	2.09
76	2.84
76	2.87
	76

Source: Research data (2015)

The study established that the institution was rated to be performing to a moderate extent on green purchasing practices as evidenced by an overall mean of (M = 2.67, SD = 1.01). The institution were rated to be performing to a moderate extent on timeliness in green purchasing process, purchasing of friendly products and being compliant with green procurement policies with means of (M = 2.89, SD = 1.250), (M = 2.87, SD = 1.370) and (M = 42.84, SD = 1.244) respectively. Lastly recycling of procured products was rated to be performing to a low extent with a mean of (M = 2.09, SD = 1.168).

4.5 Extent of Supplier Partnership

The study sought to investigate the extent to which respondents agreed with the given statement on supplier partnership in the institution. The supplier partnership parameters were rated on a Likert scale of 1-5 where: 1 = No Extent; 2 = Little Extent; 3 = Moderate Extent; 4 = Great Extent; 5 = Very Great Extent. The results of the study are as shown in the table 7 below.

Table 4. 6: Extent of Supplier partnering

Supplier Partnership measures N Mean Std. Deviation			
Relationship focus on product Quality	76	3.11	1.114
Rapid integration of Institution	76	3.03	0.864
Mutual Planning and Problem solving efforts	76	2.92	0.935
Partnership exist in design choices	76	2.91	0.996
Overall Mean		2.99	0.978

Source: Research data (2015)

The study established that the institutions practised supplier partnership to a moderate extent as evidenced by a mean of (M = 2.99, SD = 0.978). The Institution were rated to be performing to a moderate extent on relationship focus on product quality, rapid integration of institution, mutual

planning and problem solving efforts and existence of partnership in design choices with means of (M = 3.11, SD = 1.114), (M = 3.03, SD = 0.864), (M = 2.92, SD = 0.935) and (M = 2.91, SD = 0.996) respectively.

This is in line with Ragatz *et al.*, (1997)who stated that supply partnerships are entered into to promote shared benefits among the parties and ongoing participation in one or more keys strategic areas such as technology, products and markets.

4.6 Relationship between Green Purchasing practices and Procurement performanceA correlation analysis was conducted to explain the relationship between procurement performance and Green Purchasing practices using Statistical Package for Social Sciences. The results obtained are presented in table 4.7;

Table 4. 7: Relationship between procurement performance and green purchasing practices

	Recycli ng of Product Procure d	Time liness in Gree n Purc hasin g Proce	Complianc e with Green Procureme nt Policies	Purchasing of Environme ntal Friendly Products
Cost reduction and Saving	.570	.623	.636	.632
Sig.	0.01	0.01	0.02	0.01
Reduced Lead Time	.476	.550	.647	.611
Sig.	0.03	0.02	0.01	0.01
Inventory Control Efficiency	.542	.551	.590	.573
Sig.	0.01	0.01	0.02	0.01
Quality Products	.532	.539	.716	.653
Sig.	0.02	0.01	0.00	0.02

**. Correlation is significant at the 0.05 level.

Source: Survey Data (2016)



The research study was done to examine the relationship between green purchasing and procurement performance in the institution. The result of the study indicates the correlation between green purchasing practise recycling of product procured and procurement performance measures cost reduction and saving, reduced lead times, inventory control efficiency and product quality were all positive and significant with coefficients of (r=0.570, p=0.01); (r=0.476, p=0.03); (r=0.542, p=0.01) and (r=0.532,p=0.02) respectively. This implies that if the institution recycle most of their procured products then this will result to more cost reduction and more savings, reduced lead times, more inventory control efficiency and more product quality.

The correlation between green purchasing practise timeliness in green purchasing and procurement performance measures cost reduction and saving, reduced lead times, inventory control efficiency and product quality were all positive and significant with coefficients of (r=0.623,p=0.01); (r=0.550, p=0.02); (r=0.551, p=0.01) and (r=0.539, p=0.01) respectively. This implies that if the institution ensure timeliness in green product procured then this will result to more cost reduction and more savings, reduced lead times, more inventory control efficiency and more product quality.

The correlation between green purchasing practise compliance with green procurement policies and procurement performance measures cost reduction and saving, reduced lead times, inventory control efficiency and product quality were all positive and significant with coefficients of (r=0.636, p=0.02); (r=0.647, p= 0.01); (r=0.590, p=0.02), and (r=0.716, p=0.00) respectively. This implies that the if institution ensures more compliance with green procurement policies then this will result to more cost reduction and more savings, reduced lead times, more inventory control efficiency and more product quality.

Lastly the correlation between green purchasing practise purchasing of environmental friendly products and procurement performance measures cost reduction and saving, reduced lead times, inventory control efficiency and product quality were all positive and significant with coefficients of (r=0.632, p=0.01); (r=0.611, p=0.01); (r=0.573,p=0.01) and (r=0.653, p=0.01) respectively. This implies that if

the institution purchases more environmental friendly products then this will result to more cost reduction and more savings, reduced lead times, more inventory control efficiency and more product quality.

Results of the correlation analysis between green purchasing practices and performance from table 4.6 indicates that there is indeed a significant and positive relationship between green purchasing practices and procurement performance. This implies that an increased adoption of green procurement practices has a probability of enhancing procurement performance positively.

This is in tandem with Choi and Zhang. (2011) study on green logistics and business performance in China where they found out that some organizations have a match between environmental considerations and profitability.

The finding also agrees with the findings of Otago (2009) who argued in his findings on green supply management that GSCM helps reduce the ecological impacts of industrial activities thereby enhancing environmental performance.

4.7 Relationship between Supplier partnership and procurement performance

A correlation analysis was conducted to explain the relationship between procurement performance and Supplier partnership using Statistical Package for Social Sciences. The results obtained are presented and discussed in table below;

Table 4. 8: Relationship between supplier partnership and procurement best practises

	Mutual Planning and Problem solving efforts	Rapid integration of Institution	Focus on product Quality	Partnership exist in design choices
ost reduction d Saving	.550	.596	.585	.472
ig.	0.01	0.01	0.02	0.01
educed Lead	.676	.557	.633	.583
		37		

lime				
Sig.	0.02	0.03	0.02	0.01
Inventory Control Efficiency	.539	.619	.456	.580
Sig.	0.02	0.03	0.02	0.01
Quality Products	.669	.662	.816	.500
Sig.	0.02	0.01	0.01	0.02

^{**.} Correlation is significant at the 0.05 level

Source: Research data (2015)

The research study was done to examine the relationship between supplier partnership practises and procurement performance in the institution. The result of the study indicates the correlation between supplier partnership practise mutual planning and problem solving efforts and procurement performance measures cost reduction and saving, reduced lead times, inventory control efficiency and product quality were all positive and significant with coefficients of (r=0.550, p=0.01); (r=0.676, p=0.02); (r=0.539, p=0.02) and (r=0.669, p=0.02) respectively. This implies that if the institution practices more mutual planning and problem solving efforts with its suppliers then this will result to more cost reduction and more savings, reduced lead times, more inventory control efficiency and more product quality.

The correlation between supplier partnership practise rapid integration of the institution and procurement performance measures cost reduction and saving, reduced lead times, inventory control efficiency and product quality were all positive and significant with coefficients of (r=0.596,p=0.01); (r=0.557,p=0.03); (r=0.619,p=0.03) and (r=0.662,p=0.01) respectively. This implies that if the institution practises more rapid integration of their systems with those of the suppliers then this will result to more cost reduction and more savings, reduced lead times, more inventory control efficiency and more product quality.

The correlation between supplier partnership practise focus on product quality and procurement performance measures cost reduction and saving, reduced lead times, inventory control efficiency and

product quality were all positive and significant with coefficients of (r=0.585, p=0.02); (r=0.633,p=0.02); (r=0.456, p=0.02) and (r=0.816,p=0.01) respectively. This implies that if the institution focuses more on product quality then this will result to more cost reduction and more savings, reduced lead times, more inventory control efficiency and more product quality.

Lastly the correlation between supplier partnership practise existence of partnership in design choices and procurement performance measures cost reduction and saving, reduced lead times, inventory control efficiency and product quality were all positive and significant with coefficients of (r=0.472, p=0.01); (r=0.583, p=0.01); (r=0.580,p=0.01) and (r=0.500, p=0.02) respectively. This implies that if institution practises more partnering in design choices with its suppliers then this will result to more cost reduction and more savings, reduced lead times, more inventory control efficiency and more product quality.

Results of the correlation analysis between supplier partnership and procurement performance from table 4.8 indicates that there is indeed a significant and positive relationship between supplier partnering and procurement performance. This implies that increased adoption of supplier partnering has a probability of enhancing procurement performance positively.

This study agrees with Nyaga *et al.*, (2010) who examined collaborative relationships in two separate studies using structural equation modelling: in one study he examined buyers' perceptions and the second study examined suppliers' perceptions. The two studies were then compared using invariance testing in order to determine economic and relational factors that drove satisfaction and performance from each party's perspective. Results showed that collaborative activities, such as information sharing, joint relationship effort, and dedicated investments lead to trust and commitment. Trust and commitment, in turn, lead to improved satisfaction and performance. The study concluded that efforts in supplier or buyer socialization yield better performance for either firm.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents a summary of study findings, conclusions and recommendations based on the major findings.

5.1 Summary of Findings

The first objective was to establish the extent of procurement performance in public institutions. The study revealed that the procurement performance at the institution was at a moderate extent.

The second objective was to examine the relationship between green purchasing and procurement performance in Public Institutions. The study established that there was a significant and positive relationship between green purchasing and procurement performance. This implying that increased adoption of green purchasing practices have a probability of enhancing performance positively.

The third objective was to evaluate the relationship between supplier partnership and procurement performance in Public Institution. The study established that there was likewise a significant and positive relationship between supplier partnering and procurement performance. This implies that increased supplier partnering will enhance procurement performance of the institution

5.2 Conclusion

- i. The study concludes that the institution was not doing well in its procurement performance as the performance is rated to a moderate extent.
- ii. The study concluded that there is a positive and significant relationship between green purchasing practices and procurement performance.
- iii. Moreover the study concluded that there is a significant and positive relationship between supplier partnering and procurement performance.

5.3 Recommendations for Institutional Improvement

i. The study recommends that management of Public Institutions should focus on its

- procurement activities and analyse further its procurement performance with a view to finding ways to improve on it.
- ii. Public Institutions should increase their focus on green purchasing and supplier partnership as these were found to take place at a low extent yet they are positively correlated with procurement performance.

5.4 Recommendation for further study

The study determined the relationship between procurement best practices and organizational performance of Public Institutions.

- The study used Pearsons' correlation to determine the relation between the study variable, more studies on the same can be done suing using regression analysis.
- ii. The study was only based in one institution; thus the study recommends that a further study should be carried out to cover a wider scope to enhance generalization.
- iii. The findings cannot be equally generalised to apply to the public sector entities and private sector. One needs to carry out further research how issue looks like in the other sectors.
- iv. The study looked at green purchasing, supplier partnering .Further research is recommended on other procurement best practices like adoption of ICT and purchasing ethics on procurement performance.

5.5 Limitations

The challenges experienced included some of the respondents not filling or completing the questions or some issues being misunderstood, inadequate responses to questionnaires and unexpected occurrences like people going on leave before completing the questionnaire. This was mitigated through constant reminder to the respondents during the period the questionnaires were administered to them. The organizational confidential policy restricted most of the respondents from answering some of the questionnaires. This was considered to be against the organization confidentiality policy to expose the organization confidential matters. The introduction letter obtained from the university to the

organizations management helped to avoid suspicion and enabled the institutions to disclose much of the information sought by the study.

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REFERENCES

- Anderson, R.C., & Hansen, E.N. (2004). The impact of environmental certification on preferences for wood furniture: A conjoint analysis approach. *Forest Product Journal*, 54 (3), 42-50.
- Ahern, D. M., Clouse, A., & Turner, R. (2001). CMMI Distilled: A Practical Introduction to Integrated Process Improvement. Boston: Addison-Wesley.
- Arawati, A. (2011). Supply Chain Management, product quality and business performance.

 International conference on sociality and economic development 10, 98-102.
- Avittathur, J., Shah, J.& Gupta, K. (2005). Distribution Centre location modeling for differential sales tax structure. *European Journal of Operational Research*, 162:191-205, 2005.
- Barney, J (1991), Firm Resources and Sustained Competitive. Advantage, *Journal of Management*, 17, 99-120. Research in the field of strategic management.
- Beardwell, I., Holden, L. & Claydon, T. (2004). Human Resource Management a Contemporary Approach. (4th ed.). Harlow: Prentice Hall
- Buvik, A. & John G. (2000) When does vertical coordination improve industrial purchasing relationship?

 Journal of marketing, 64(4)52-64.
- Chan, R.Y.K. (2001). Determinants of Chinese consumers' green purchase behavior. *Psychology & Marketing*, 18 (4), 389-413.
- Charles, S., Westbrook, R. (1991). New Strategic Tools for Supply Chain Management. *International Journal of Physical Distribution & Logistics Management*, 21: 1, 23 3.
- Chow, W.S., Madu, C.N., Kuei, C., Lu, M.H., Lin, C. & Tseng, H. (2008). Supply chain management in the US and Taiwan: an empirical study. *Omega*, 36 (5), 565-79.
- Cooper, C. R., & Schindler, P. S. (2008). Business research methods (10thed.). Boston: McGraw-Hill.

 Journal of International Business Studies, 22, 651-70.

- Cousins, P.D., Handfield, R.B., Lawson, B. & Petersen, K.J., 2006. Creating supply chain relational capital: The impact of formal and informal socialization systems. *Journal of Operations Management*, 24 (6), 851-863.
- Danese, P. & Romano, P., 2011. Supply chain integration and efficiency performance: a study on the interactions between customer and supplier integration. Supply Chain Management: *An International Journal*. 16(4), 220-230.
- D'Souza, C., Taghian, M., Lamb, P., & Peretiatkos, R. (2006). Green products and corporate strategy:

 An empiricalinvestigation. *Society and Business Review*, 1 (2), 144-157.
- Dubinsky, A.J., Jolson, M.A., Kotable, M. & Lim, C.U. (1991). A cross-national investigation of industrial salespeople's ethical perceptions. *Business Journal*, 22(4), 651-670
- Fawcett, E., Osterhaus, P., Magnan, G. M., Brau, J. C., & McCarter, M. W. (2007). Information sharing and supply chain performance: the role of connectivity and willingness. *Supply Chain Management*, 12(5), 358-368.
- Flynn, A., McKevitt, D., & Davis, P. (2013). The impact of size on small and medium size enterprises public sector tendering. International small business journal. {Online}
- Garrett, G. A., & Rendon, R. G. (2005). Contract management: organizational assessment Tools.

 Ashburn, VA: National Contract Management Association.
- Gary L, Handfield, R.B. & Scannell, T.V, (1997). Success factors for integrating supplier into new product development. *The Journal of Product Innovation Management, (May)*, 14 (3), 190-203
- Graham, G., & Hardaker, G. (2000). Supply chain management across the Internet. *International Journal of Physical Distribution & Logistics Management*, 30(3/4), 286 295.
- Green, K.W. & Inman, R.A. (2007). The impact of JIT-II-selling on organizational performance.

 Industrial Management & Data Systems, 107, (7), 1018–1035.
- Griffith, D. & Harvey, M. (2001). A Resource Perspective on Global Dynamic Capabilities. *Journal of International Business Studies*, 32 (3), 20-27

- Guth, S.R. (2010). Implementing Best Practice; *The Procurement Maturity Model. 95th ISM* Annual *International Supply Management Conference, April 2010 (pp.1-4)* International Supply Management.
- Hamlin, R. G., Ellinger, A.D., & Beattie, R. S. (2006). Coaching at the heart of managerial effectiveness: A cross-cultural study of managerial behaviours. Human Resource Development International, 9(3), 305-33
- Hassanzadeh, A. & Jafarian, A. (2010). Whip Effect in Supply Chains, New Managers, (1st .ed.).
- Harland, C.M. & Knight, L.A. (2001). Supply network strategy: role and competence requirements.

 International Journal of Operations & Production Management, 21(4), 476-89.
- Hardaker, G. & Graham, G. 2000. Energizing your Supply Chain for e-Commerce, Proceedings of the IMP Conference, Bath, http://www.bath.ac.uk/management/imp/conference.htm
- Haakansson, H. & Ford, D. (2002). How companies interacting business networks, *Journal of Business Research*, 55, 133-9.
- Hines, P. & Taylor, D.(2000). Going Lean: A Guide to Implementation. Lean Enterprise Research Centre, Cardiff Business School. *The Lean Processing Programme*.
- Holt, D. & Kockelbergh, C. (2003). Environmental Supply Chain Management in the UK An Exploratory Analysis of Current Practices. Proceedings of the 12th Annual International IPSERA Conference, Budapest, 1, 677-689.
- Howard, C., Xin, C., Robert, F.,& George, W. (2010). Financial Constraints and Stock Returns Evidence from Australia. *Pacific Basin Finance Journal*, 18, 131-205
- Hines, P. and D. Taylor. 2000. *Going Lean: A Guide to Implementation. Lean Enterprise Research Centre*, Cardiff Business School, the Lean Processing Programme 3, 306-318.
- Holden, A. (2000). Winter Tourism and the Environment in Conflict: The Case of Cairngorm, Scotland. *International Journal of Tourism Research* 2, 247-260.

- Hunja, R. (2003). Obstacles to Public Procurement Reform in Developing Countries. Arrow, S.,& Trybus, M. (Eds.). Public Procurement: The Continuing Revolution 50(2),. 13-22). Dordretch. The Netherlands: Kluwer Law International
- Ireland, R.D, Webb, J.W. (2007). Strategic entrepreneurship: Creating competitive advantage through streams of innovation. *Business Horizons* 50, 49
- Johnson, P. F.& Michiel, R. (2004). Implementing Organizational Change in Supply towards

 Decentralization. *Journal of Purchasing and Supply Management*, 10 (4/5), 191-200.
- Johanson, J. & Mattsson, L.G. (1987), Inter organizational relations in industrial systems: a network approach compared with the transaction cost approach, *Inter- Organizational Studies of Management and Organization*, 17(1), 34-48.
- John, R., Hollenbeck, S., & Humphrey, E. (2003). Cooperation, Competition, and Team Performance:

 Toward a contingency approach. Michigan State University.
- J. Bell et al. / Deep-Sea Research I 49 (2002) 2103-2118.
- Karp, H.B.,& Abramms, B. (1992). Doing the right thing. *Training and Development journal*, August, 37-41.
- Khi, V. Public Procurement re-examined, Journal of Public Procurement, 1(1), 9-50.
- Khiewnavawongsa, S., & Edie, K. (2008). Green Power to the Supply Chain.
- Kiawa, M.F. (2012). *Accountability in public sector procurement*. Unpublished Thesis for the award of LLM, University of Nairobi.
- Koh, S.C., Demirbag, M., Bayraktar, E., Tatoglu, E. &Zaim, S. (2007). The impact of supply chain management practices on performance of SMEs. Industrial Management & Data Systems, 107 (1), 103–124.
- Kombo, D. K. & Tromp, D. L.A (2006). Proposal and Thesis Writing. Nairobi. Paulines Publications.
- C. R. Kothari (1990). Research Methodology method & Techniques Second Edition.
- Kothari, S.P. 2000. The role of financial reporting in reducing financial risks in the market. In Building an Infrastructure for Financial Stability. Edited by E.S. Rosengren and J.S.

- Jordan. Federal Reserve Bank of Boston Conference Series 44, 89-102.

 Kothari, S. P., 2000, Capital market research in accounting, Journal of Accounting and
- Kuvaas, B. (2006). Performance appraisal satisfaction and employee outcome: mediating moderating roles of work motivation. *International Journal of HRM*. 17(3), 504.
- Kyung, M., Gill, J., Ghosh, M. & Casella, G. (2010). Penalized Regression, Standard errors, and Bayesian lassos. Bayesian Analysis 5(2), 369-412.
- Lancioni, R., Smith, M. & Oliva, T. (2000). The Role of the Internet in Supply Chain Management, Industrial Marketing Management, 29, 45-56.
- Leenders, M. L., Fearon, H. E., Flynn, A. E., & Johnson, P. F. (2002). Purchasing & Supply Management. New York: McGraw-Hill.
- Learned, E. P., Christensen, C. R, Andews, K. & Guth, W.D. (1969). Business Policy: Text and Cases. Homewood, IL: Irwin.
- Liker, J.K. (2004). The Toyota Way: 14 Management principles from the world's greatest manufacturer. New York, NY: McGraw-Hill.
- Lyson, K. & Farrington, B. (2006) .. Purchasing and supply chain Management (7th (ed.).London: Prentice Hall.
- Maignan, I., & Ferrell, O.C. (2004). Corporate social responsibility and marketing: An integrative framework. Journal of the Academy of Marketing Science 32 (1), 3-19.
- Mark, W.& Ram. R. (2009). Enabling lean procurement: a consolidation model for small- and mediumsized enterprises. Journal of Manufacturing Technology Management, 20 (6), 817 - 833.
- McMurrian R. C. & Matulich, E. (2006, November). Building customer value and profitability with business ethics. Journal of Business & Economics Research, 4(11), 11. Retrieved October 24, 2010

- McDonald, G.M. (1995). Common myths about business ethics: perspectives from Hong Kong: Business Ethics. *A European Review*, 4(2), 64-69.
- Mugenda, A., & Mugenda, O. (1999). Research Methods: Qualitative and Quantitative Approaches.

 Nairobi: Acts Press.
- McMahon, M. and A. Flynn, 2003, A holistic approach to risk management can save time and money, Finance, 17(6), 4.
- Mouritsen, J., Bukh, P.N., Johansen, M.R., Larsen, H.T., Nielsen, C., Haisler, J. and Stakemann, B. (2003). *Analysing Intellectual Capital Statements*, (Copenhagen: Danish Ministry of Science, Technology and Innovation, 2003b). (www.vtu.dk/icaccounts) 12].
- Nyaga, G., Whipple, J. & Lynch, D. (2010) Examining supply chain relationships: Do buyer and supplier perspectives on collaborative relationships differ? *Journal of Operations Management*, 28(2), 101
- Ngechu.M. (2004), Understanding *the research process and methods*. An introduction to research methods. Nairobi: Acts Press
- OECD. (2007).Integrity in Public Procurement Good Practice from A to Z. France, Paris: OECD Publishing.
- Pamela, D., & Pietro, R. (2011) Supply chain integration and efficiency performance: a study on the interactions between customer and supplier integration, Supply Chain Management: *An International Journal*, 16(4), 220 230.
- Parasuraman, A. (2002). Service quality and productivity: A synergistic perspective, Managing Service Quality: *An International Journal*, 12(1), 6-9
- Cousins, P.D., & Mengue, S (2006). The implications of socialization and integration in supply chain management. *Journal of Operations Management*, 24 (5), 604-620
- Paulraj, A., Lado, A., Chen, I.J., 2008. Inter-organizational communication as a relational competency: Antecedents and performance outcomes in collaborative buyer-supplier relationships. Journal of Operations Management, 26 (1), 45-64.

- Pearce, J.A. & Robinson, R.B. 2007.Formulation, Implementation and Control of Competitive Strategy, (9th ed). Boston, MA: McGraw-Hill Irwin.
- Public procurement oversight Authority (2007). Assessment of the procurement system in Kenya. Nairobi, PPOA.
- Public procurement oversight Authority (2009). Public procurement and disposal general manual, (1st Ed.) Nairobi, PPOA.
- Public procurement oversight Authority (2010). Quarterly PPOA Bulletin. Nairobi, PPOA.
- Public procurement oversight Authority (2010). Strategic plan, 2010-2014. Nairobi, PPOA.
- Public procurement oversight Authority (2010). Annual reports and accounts, 2009-2010. Nairobi,
- Prajogo, D.,& Olhager, J., (2012). Supply chain integration and performance: The effects of long-term relationships, information technology and sharing, and logistics integration. *International Journal of Production Economics* 135 (1), 514–522.
- Pressey, A.D., &Qui, X.X., (2007). Buyer-supplier relationship dissolution: The Chinese context.

 Journal of Business & Industrial Marketing 69, 320–352.
- Reilly, B. J. & Kyj, M.J (1992). Ethical Business and the Ethical Person. Logistics Review. Summer, 2-6. © Tony Wagner, 2006 (first published in Education Week, January 11, 2006)
- R. Maignan, I., & Ferrell, O. C. (2004). Corporate social responsibility and marketing: an integrative framework. *The Journal of the Academy of Marketing Science*, 32(1).
- Saini, A.2010 Purchasing ethics and inter-organizational buyer-Supplier relational determinants. A conceptual framework Business ethics 95 (3) 439-455.
- Sánchez, A. M., & Pérez, M. P. (2005). Supply chain flexibility and firm performance: a conceptual model and empirical study in the automotive industry. International Journal of Operations & Production Management, 25(7), 681-700.
- Schotanus, F. & Telgen, J.(2007). Developing a Topology of organizational forms cooperative purchasing. *Journal of purchasing and supply management*, 13(1) 53-68.
- Seman, N. (2012). Green Supply Chain Management: A Review and Research Direction.

- Saeed,K.A., MalhotraM.K.&, J. (2005).Examining the impact of inter organizational systems on process efficiency and sourcing leverage in buyer –supplier dyads. *Decision sciences*, 36(3), 365-396.
- Simon, B., & Stürmer, S. (2003). Respect for group members: Intergroup determinants of collective identification and group-serving behaviour. *Personality and Social Psychology Bulletin*, 29,183-193.
- Smaros, J., Lehtonen, J. M, Appleqvist, P., & Holmstrom, J. (2003). The impact of increasing demand visibility on production and inventory control efficiency. *International Journal of Physical Distribution & Logistics Management*, 33(4), 336-54.
- Subramaniam, C. & Shaw, M.J. (2002). A Study of the Value and Impact of B2B E-Commerce: The Case of Web-Based Procurement. *International Journal of Electronic Commerce* 6(4): 19-40.
- Thompson, A.A. & Strickland, A.J. 2003. Strategic Management: Concepts and Cases, 13th edition.

 New York: McGraw-Hill.
- Turban, E., Lee, J., King, D., & Chung, H.M. (2000). Electronic commerce: a managerial perspective, Prentice Hall International Inc Un ethical behaviour in procurement: A perspective on causes and solutions [Book Review] J. A. Badenhorst, *Journal of Business Ethics* 13 (9):739 745 (1994)
- Van Der, V., & Van, D., (2008). A critical review of survey-based research in supply chain integration.

 International Journal of Production Economics 111(1), 42–55
- Villena, V. H., Revilla, E.; Choi, T. The dark side of buyer–supplier relationships: A social capital perspective. *Journal of Operations Management v.29*, n.6, p. 561576, 201
- Wilson E.J., Viosky, R.P. (1997). Partnering Relationship Activities: Building Theory From Case Study Research. *Journal of Business Research*, 39: 59-70.
- Walker, T., & Sidwell, A.C. (1996) Benchmarking Engineering And Construction A Manual For Benchmarking Construction Time Performance. Construction Industry Institute (CIIA) and University of South Australia, Adelaide, Australia.

Zhang, C., Dhaliwal, J.(2009). An investigation of resource-based and institutional theoretic factors in technology adoption for operations and supply chain Management. *International Journal of Production Economics 120 (1)*, 252–269