SUPPLY CHAIN INTEGRATION AND ORGANIZATIONAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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DECLARATION

I declare that this is my original work and has not been presented for a degree in any other university.

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

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D61/62808/2010

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

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DEDICATION

This project paper is dedicated to my family and friends who have encouraged me and a special gratitude to my dear Wife, Tabitha Ndinda Owino for her great support, never ending encouragement and prayers towards the successful completion of this course. Thank you Almighty God for seeing me through this long journey.

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ABSTRACT

The world economy continues to be globalized and firms are exploring ways to survive in a competitive world. One of the ways to survive this intense competition is to have an efficient supply chain. The level of uncertainty in the business environment also continues to increase and one of the greatest challenges to a firm is responding to uncertainty, caused by a highly volatile demand and short product life cycle. Implementation of strategic integration in a firms supply chain has been advocated as one of the means of increasing competitiveness of a firm. The objective of this study is to determine the effect of supply chain integration on organizational performance of commercial banks in Kenya. The study adopted a cross sectional research design. The population of the study were all the 42 commercial banks currently operating in Kenya. The study used primary data which was collected using a questionnaire. The data was analyzed using the Statistical Package for Social Sciences (SPSS) software and presented using tables and figures. Regression analysis was used to find out the relationship between the demographics and use of integration in the supply chain by the banks, supply chain integration and organizational performance. The study found out that reverse logistics, knowledge management, top management support, information technology adoption, customer orientation and customer service affect performance of commercial banks. The study recommends that management in commercial banks should embark on information sharing so as to respond to customer requirement, enhance the product availability, and efficiently coordinate processes in order to lower the costs, offer better customer service, improve revenues, and have properly guided capacity plans. The study recommends that a further study should be carried out to establish ways through which public institutions could enhance supply chain integration so as to improve their performance and service to the public. A further study should be carried out to establish the challenges of integrating supply chain in public institutions and consequently how this impacts on their performance and service delivery in the public sector.

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The world economy has continued to be globalized and firms are exploring ways to survive in a competitive world and to have an efficient supply chain is one of the ways to survive competition (Hassler, 2004). The level of uncertainty in the business environment has continued to also increase and one of the great challenges to a firm is responding to uncertainty, because of a highly volatile demand and short product life cycle. These challenges are caused by high competition among local firms, as well as competition between local and foreign firms. With this, the focus in supply chain management (SCM) must be directed from cost management to adopting appropriate response that will make the firm be a market driver (Arend and Wisner, 2005).

Implementation of strategic integration in a firms supply chain has been advocated as one of the means of increasing the level of certainty and competitiveness in a firm. Indeed as Christopher and Towill (2000) opined, one key feature of a business is the competition between supply chains rather than between companies and consequently, firms need to look for competitive success not only through the integration of internal business processes but also through the integration and alignment of intercompany processes.

Today’s competition is not among individual companies, but it is among networks of organizations that are known as supply chains (Christopher, 2004). Through the installation of co-operative relationships, organizations are able to achieve distinct competitive advantages, as the adaptation and execution of such networks helps to reduce operating costs and maximize the effectiveness of the organization and eventually improve the performance of the firm (Mason and Leek, 2008).

Verlezza (2012) states that the supply chain, its capabilities and limitations, should never by itself dictate to the business. It is by weaving the supply chain into the fabric of the business, that a company can wring the most value from its internal workings to enable on-going external and internal financial performance initiatives. Putting the supply chain at the core of the business allows the right combination of understanding and cost control while optimizing customer service and satisfaction. A company should strive for functional excellence, but not at the expense of co-existing departments. It has been claimed that a business which integrates its supply chain directly into its operating model stands the best chance to optimize its overall costs more efficientlyand this in turn is the best model for a successful supply chain which has fully integrated all of its components into one comprehensive set of intimately linked processes (Verlezza, 2012).

1.1.1 Supply Chain Integration

Wang and Miller (2005) define supply chain integration as the process of merging elements from two similar antecedent processes to create a single process that can be used to replace the original processes. Also, according to Fabbe-Costes and Jahre (2008) integrated supply chain concept refers to administering the various supply chain functions into a unified program. A successful supply chain then coordinates and integrates all of the activities into a seamless process and links all the partners in the chain whether suppliers or customers.

Integration has become a very important and integral part of any organization. Integration of technology, people, business and processes has become crucial for survival of any organization and especially if the organization needs to find a competitive edge in the current global economy (Arend and Wisner, 2005).

Business agility requires an integrated infrastructure that enables rapid deployment of new solutions while leveraging existing IT investments. An agile business can't afford to rip and replace business systems. It requires real-time connectivity between people, systems, and business entities. Accelerating business processes requires process automation. Although some processes will require human intervention at certain points, especially authorizations and exception handling, increasing the velocity of business requires automating as much as possible; even after automating processes, companies need to monitor and manage them in real time to continually improve and optimize the processes (Fabbe-Costes and Jahre, 2008).

Organizations have also been forced to integrate so that they can be able to increase their revenue. Enterprise integration can increase revenue by increasing market share and creating new market opportunities. Increased market share is the result of retaining and increasing revenue from existing customers by increasing customer satisfaction and attracting new customers by bringing new products and services to market rapidly in response to emerging opportunities. New opportunities are created by integrating with partners and suppliers, bringing products and services to market more quickly, and creating new sales or distribution channels through on-line capabilities (Zailani and Rajagopal, 2005).

The importance of supply chain integration between a firm and its suppliers and also its customers is increasing. As is expected with any business relationship, the association should be expected to be long term and the strength of the relationship depends upon the behavior of the members in the supply chain. To succeed with integration, there must be a clear understanding of the material bought and the core competencies, and experience of the supplier, the customer being served and the organization itself. The integration quality is always dependent upon a relationship between the organization and supplier (Wood and Brewster, 2005). Developing integration between the firm and its suppliers or a firm and its customers, aims at improving specific areas of a firm’s performance, leading to savings in quality inspection costs and better integration of design efforts to meet the customer’s needs (Mudambi and Schründer2006).

Integration among partners in a supply chain that focuses on both the customers and suppliers should be reviewed in its entirety and on a regular basis so as to develop cooperative attitudes in the chain (Goh, Lau, and Neo 2006). In addition, integration is crucial in building trust sothat the supply chain mechanisms can function effectively. More collaborative systems in integration are characterized by a closer and more mutually supportive relationship between the firm, its supplier and its customers. To enhance the integration relationship, there is need for flexibility among the partners, a broader regulatory and social environment that is characterized by both formal structures of mediation and informal networks of trust and collaboration (Panayides and Lun, 2009).

1.1.2 Organizational Performance

Every organization exists to achieve a particular goal. Organizational performance is the final achievement of an organization and contains a few things, such as the existence of certain targets, has a period of time in achieving these targets and the realization of efficiency and effectiveness (Blowfield and Dolan, 2010). Thus, organizational performance refers to ability of an enterprise to achieve such objectives as high profit, quality product, large market share, good financial results, and survival at pre-determined time using relevant strategy for action (Koontz and Donnell, 2003). Performance provides the basis for an organization to assess how well it is progressing towards predetermined objectives, identify areas of strength and weakness and decide on the future initiatives with the goal of how to initiate performance improvement (Vanweele, 2006).

Organizational performance includes multiple activities that help in establishing the goals of the organization, and monitor the progress towards the target (Kopczak and Johnson, 2003). It is used to make adjustments to accomplish goals more efficiently and effectively. Organization performance is what business executives and owners are usually frustrated about. This is because even though the employees of the company are hard-working and are busy doing their tasks, their companies are unable to achieve the planned results. Results are achieved more due to unexpected events and good fortune rather than the efforts made by the employees. However, for any business to be successful, functions must be defined and accomplished. It is important for an organization to develop strategies that are designed around the skills that would enhance the performance of the organization. Organizational performance is affected by myriad factors including: the lines of communication and command connecting these individuals (organizational authority structure and the degree of centralization), the resources and information to which the individuals have access, the nature of the task faced by the individuals, and the type and severity of the crisis under which the individuals operate (Richard and Devinney, 2005).

1.1.2.1 Financial Measures

Financial measures as a form of business performance measurement still remains an important part of running a growing business, especially in the current economic climate. Most growing businesses ultimately target increased profits, so it is important to know how to measure profitability. The key standard measures are:-

Profitability measures the extent to which a business generates a profit from the factors of production: labor, management and capital. Profitability is the most important measure of success of the business. Profitability analysis focuses on the relationship between revenues and expenses and on the level of profits relative to the size of investment in the business (Mesquita & Lara, (2003). Four useful measures of firm profitability are the rate of return on firm assets (ROA), the rate of return on firm equity (ROE), operating profit margin and net firm income. The ROA measures the return to all firm assets and is often used as an overall index of profitability, and the higher the value, the more profitable the firm business. The ROE measures the rate of return on the owner's equity employed in the firm business. It is useful to consider the ROE in relation to ROA to determine if the firm is making a profitable return on their borrowed money (Hadlock & James, 2002).

Solvency measures the amount of borrowed capital used by the business relative to the amount of owner's equity capital invested in the business. Solvency measures also provide an indication of the business' ability to withstand risks by providing information about the firm's ability to continue operating after a major financial adversity (Hammes, 2003).

Three widely used financial ratios to measure solvency are the debt-to-asset ratio**,** the equity-to-asset ratio and the debt-to-equity ratio**.** These three solvency ratios provide equivalent information, so the best choice is strictly a matter of personal preference. The debt-to-asset ratio expresses total firm liabilities as a proportion of total firm assets and the higher the ratio, the greater the risk exposure of the firm. The equity-to-asset ratio expresses the proportion of total assets financed by the owner's equity. The debt-to-equity ratio reflects the capital structure of the firm and the extent to which firm debt capital is being combined with firm equity capital. It is a measure of the degree to which a firm is leveraging its equity.

1.1.2.2 Non-Financial measures

Financial measures do not convey the full picture of a company's performance, especially in today's competitive environment where companies are competing in terms of product, quality, delivery, reliability, after-sales service and customer satisfaction. None of these services is measured by the traditional responsibility accounting system, despite the fact that they represent the major goals of world-class manufacturing companies. Many companies are using both qualitative and quantitative non-financial indicators such as;

quality, lead time, number of customer complaints and warranty claims, delivery time, non-product hours, and system down time (Bozec, 2005).

Although non-financial measures are increasingly important in decision-making and performance evaluation, companies should not simply copy measures used by others. The choice of measures must be linked to factors such as corporate strategy, value drivers, organizational objectives and the competitive environment. In addition, companies should remember that performance measurement choice is a dynamic process - measures may be appropriate today, but the system needs to be continually reassessed as strategies and competitive environments evolve (Sharma *et. al.*, 2005).

In conclusion, organisations which do not check adequately how well they are performing in their processes, procedures and plans experience low performance and higher customer dissatisfaction and high employee turnover (Artley and Strol, 2001).

1.1.3 Commercial Banks in Kenya

Kenya's financial landscape has considerably changed over the period 2006-2013 and the financial sector has grown in assets, deposits, profitability and products offering. The growth has been mainly underpinned by an industry wide branch network expansion strategy both in Kenya and in East Africa community region as well as automation of a large number of services and a move towards emphasis on the complex customer needs rather than traditional 'off-the-shelf' products. Among these innovations include moving from the traditional decentralized banking to one branch banking that has been enabled by integration of various business functions (PWC, 2012). The CBK annual supervision report emphasizes that the financial institutions will need to cope continuously with changing business environment and a continuous flood of new requirements via a robust ICT platform, while staying sufficiently agile. Consumers will continue to demand individualized services, and to demand them faster than ever (CBK, 2014).

The banking industry in Kenya has found it necessary to embrace supply chain integration as one way of responding to the changing needs of the customers. Contemporary customers have become more informed and require efficient and faster service delivery that before. Nyaoke (2007) indicates that there are some challenges that are encountered by the banking industry in Kenya such as money laundering, but such kind of challenges are easily overcome once banks embrace integration since various departments are able to share real time information.

1.2 Statement of the Problem

As the level of competition in the 21st century intensifies and markets become more global, so do the challenges associated with getting a product and service to the right place, at the right time, at the lowest cost also continue to be on the increase. Consequently, the whole process of understanding and practicing supply chain management (SCM) has become an essential prerequisite for staying competitive in the global race and for enhancing profitably (Christopher, 2004). One of the strategies being employed by firms in their procurement practice is information sharing among the supply chain partners. Green and Inman (2005) point that the key ingredient for any SCM system is the need to develop a seamless supply chain in which information that is undistorted and up-to-date is made available at every node within the supply chain. This will require development of an effective integration between the players in the supply chain (Green and Inman, 2005).

The Kenyan banking industry has continued to grow both in terms of new local and foreign entrants, customer and deposit base, regionalization and increased scrutiny from the regulators specifically the Central Bank of Kenya. This new shift in the Kenyan banking industry can be attributed to the liberalization of the sector, increased adoption of information technology and improved business environment due to reforms being undertaken in the political, economic, social and cultural fields. With these changes, the level of competition in the banking industry has reached an all level high and there is need for these banks to explore other avenues from which their performance can be increased. Adoption of innovative strategies have been found to be a source of sustainability more so in such environment characterized by stiff competition and enlightened customers (Grant, 1996). One of the procurement strategies that can be adopted by the banks is the initiation of the collaborative strategies with supplier chain partners- both downstream and upstream in order to enhance their level of competitiveness and eventually firm performance. Kenyan firms should therefore endeavor to streamline their relationship with their suppliers and this forms the basis of this research.

Several studies have been undertaken on the need of supply chain partners' integration. Chizzo (2008) found that while information sharing is important, the significance of its impact on the performance of a supply chain depends on what information is shared, when and how it is shared, and with whom . This finding reveals the need for the integration to be specifically tailored to those supply chain members that are engaged in activities that will lead to a synergy.

Achrol, Scheer and Stern (2000) identified commitment, trust, group cohesiveness, and motivation of alliance participants as critical to inter-organization strategic alliances. They therefore reinforced the need for organizational compatibility as one of the key predictors of effective inter-organizational relationships. Spekman, (2009) reinforced this point by noting that without a foundation of effective inter organizational relationship, any effort to manage the flow of the information or materials across the supply chain is likely to be unsuccessful. Trust and commitment are needed to build long-term cooperative relationships between supply chain partners.

Locally, Kyengo (2012) found out that the overall performance of the organization was greatly influenced by the capacity of the firm to deliver products to the widely dispersed customers on time. The study was not on a public sector institute. Dajissa (2011) found out that the performance of supply chain was being influenced by quality of service, supplier management, supplier relationship, supplier selection, time service delivered and the internal assessment of criticality of business activities. The study concentrated more on the outsourcing of services. Mwingi (2011) found out that the performance of the Oil firms to fulfill various customer demands or to improve the efficiency of a firm itself can be affected by regulations and there is need to develop a more robust customer relationship that help in reducing the lead times. The study failed to come out clear on the effect of the practices on procurement function performance of public organizations.

From the studies reviewed, it is evident that majority of the studies have not evaluated firm performance from the point of view of addressing a gap in the buyer–supplier and supplier-customer relationships and its effect on a firm's performance. Further, the studies do not simultaneously investigate strategic information flows between buyers and suppliers, which has hamstrung efforts to understand conditions in which these flows occur and their performance impact. Consequently, this gap which the research intends to fill leads to the following research questions: What is the extent of supply chain integration currently being practiced in commercial Banks in Kenya?

What is the effect of supply chain integration on organizational performance of commercial banks in Kenya?

1.3 Research Objectives

(i) To establish the extent of supply chain integration among commercial banks in Kenya.

(ii) Establish the effect of supply chain integration on the performance of commercial banks in Kenya.

(iii) Establish the challenges faced by the commercial banks in Kenya in the integration of the supply chain.

1.4 Value of the Study

The findings of this study will give policy makers a glimpse of how supply chain integration affects the performance level of commercial banks and consequently identify mechanism that can be harnessed by the regulators to achieve improved performance of private sector organizations which is a critical blue print for the economic growth and development in Kenya.

The findings of the study will enable the management of the various commercial banks to identify the key factors to consider in procurement in achieving optimal utilization of shareholders' funds and resources.

To the scholars and academicians, this study will be useful in enriching the body of knowledge and would also help them in carrying out further and related studies in public procurement as this study will avail critical information in formulation of policies and regulations in alignment with public procurement.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The chapter provides information from publications on topics related to the research problem. It examines what various scholars and authors have said about the integration of the supply chain partners. The chapter covers: theoretical foundation of the study, the integration of the supply chain partners, organizational performance, and effect of the integration of the supply chain partners on the performance of the firm, summary of the chapter and finally represents the conceptual framework guiding the study.

2.2 Theoretical Foundation of Supply Chain Integration

The debates on role of supply chain collaboration on the performance of a firm can be addressed in light of three theories in literature: relational view, the resource based and knowledge based theories.

2.2.1 Relational View Theory

The relational view of the firm was advanced by Dyer and Singh (1998) who advocated how transaction exchange relationships can be developed into collaborative integrations and the critical factors for such integrations. The key premise of this theory is that, a relational rent and competitive advantage can be generated through value-adding initiatives enabled by inter-firm resource and routine. According to Richard and Devinney (2005), the distinctive characteristics of such relational integrations include information exchanges between parties, complementary strategic and organizational resource combinations, relationship-specific asset investments, and effective relational governance. They further point that the mechanisms that subsequently preserve relationally derived performance benefits include causal ambiguity, time compression diseconomies, inter organizational asset interconnectedness, partner scarcity, resource indivisibility, and institutional environments.

Drawing upon the work of Dwyer, Schurr and Oh (1987) and Morgan and Hunt (2002) on collaborative inter-organizational relationships as well as the relational view of the firm, they conceptualize how logistics integrations operate to generate rents. They suggest that flows of strategic information between partners represent the exchange of complementary strategic resources and this exchange is characterized by time compression diseconomies and is facilitated by asset interconnectedness between partners, and that these complementary strategic resources generate relational rents.

In conclusion, this theory advocates for collaborative integration within the supply chain driven by transaction exchange and this can lead to strategic information exchange between partners in the chain that is mutually beneficial to all parties. Relation integration e.g. information exchange between parties in the chain, strategic resource combination and relation specific investments can further accelerate the integration process in a supply chain either within the organization or with other organizations.

2.2.2 Resource Based Theory

The resource-based view theory regards the firm as a cognitive system, which is characterized by idiosyncratic and context-dependent competences that are core to strategic purposes. These are conditioned by hierarchical capabilities, or sets of routines, involved in the management of the firm's core business processes that help to create value. Competences typically involve the development of specialist expertise, and firms may become locked into a trajectory that is difficult to change effectively in the short to medium-term (Tushman and Anderson, 2006). The premises of the resource-based view is that successful firms develop distinctive capabilities on which their future competitiveness will be based; which capabilities are often idiosyncratic or unique to each firm, and may also be implied and intangible in nature.

Unlike the other approaches, the resource based view suggests that firm performance is mainly determined by internal rather than external variables (Barney, 1991). Firms' follow heterogeneous historical paths and as a result, create different qualifications that affect their capabilities in different ways (Wernerfelt, 1984). Successful firms in an industry are successful because they can access a range of resources and thus gain competitive advantages. In this context, "resources" refers to all tangible and intangible assets, such as cash, loans, capabilities and qualifications, organizational processes, firm attributes, information, and knowledge (Wernerfelt, 1984).

In conclusion, this theory leverages upon the fact that in order to drive performance, an organization needs to develop a distinct competency that will push their competitiveness. One of the ways of achieving this is through having an integrated supply chain.

2.2.3 Knowledge Based Theory

Knowledge based theory considers intangible resources of an organization. Grand (1997) who made significant contribution to the development of this theory, promotes the sharing of knowledge as key to value creation to both internal and external organizational supply chain collaborations. According to Grand (1997), knowledge based theory is a source of competitive advantage and also exchange of knowledge increases an organization's supply chain value creation.

Knowledge based theory looks at several dimensions that assist an organization to achieve its goals i.e. new product development, organizational capabilities, innovation, and organizational learning (Grand, 1997). According to Alavi and Leinder (2001) information technology can also play an important role in the knowledge based view of the firm in that information systems can be used to synthesize, enhance and expedite large scale intra and inter firm knowledge management.

Knowledge based capabilities are considered to be the most strategically important ones to create and sustain competitive advantage (DeNisi, Hitt and Jackson, 2003). The capacity of an organization to learn faster than its competitors could turn out to be the only sustained competitive advantage (Geus, 1988). Capabilities and capacities lead to superior sustained performances because they are specific to each organization, valuable to the clients, non-substitutable and hard to imitate (Rugman and Verbeke, 2002).

In conclusion, suppliers and retailers have knowledge in different domains and this knowledge can create a unique set of strategic information that can be applied to improve business processes and operations. Better relationship between an organization with its suppliers and retailers will improve prospect of new product development and acceptance by its customers.

2.3 Integration of Organizational Supply Chain Partners

Strategic partnerships create value but are also costly to develop, nurture and maintain. The number of real partnerships a company can build and maintain is limited. Therefore, partnership type of relationships cannot be expected to be built with a large number of customers or suppliers. An organization has to focus its resources on building the right relationships through careful planning and decision making (Suhaiza and Premkumar, 2005).

Reverse logistics is defined as the effective and efficient management of the series of activities required to retrieve a product from a customer in order to either dispose of it or recover value (Defee, Esper and Mollenkopf, 2009). On their part Rogers and Tibben-Lembke (2009, p.2) defined reverse supply chain as “the process of planning, implementing and controlling the efficient, cost-effective flow of raw materials, in-process inventory, finished goods and related information from the point of consumption to the point of origin for the purpose of recapturing or creating value or for proper disposal”. Firm control has been recognized as a crucial component of SCM. Parsons (2002) noted that the first step (in SCM) is to introduce structure and discipline to the supply process, tightening up procedures, and taking control of all activities in the supply chain. An important way to introduce structure is to formalize logistics operations. The rapid growth in the volume of returns often outpaces the abilities of firms to successfully manage the flow of unwanted product coming back from the market. The complex procedures and steps required for any RSC to be operational make most companies to shy away from undertaking the same process.

Chong and Ooi, (2008) point that procurement practices is concerned with working with external groups namely; customers and suppliers and a strategic partnership between the supply chain partners will be required. For instance, for implementing SCS (supply chain standard) such as Rosetta Net standards, strategic partnership and supply chain members are the most important factors. Sourcing decisions are fundamental with respect to procurement process. The choice of supplier, how businesses are effectively integrated to obtaining proper complementary skills will form an important practice for any business unit. Narasimhan and Jayaram, (2008) found that strategic sourcing initiatives improve supply chain performance and through examining the type of sourcing decisions, strategic sourcing decisions were found to be strongly related to manufacturing goal achievement in a study of 215 North American manufacturers. In addition, the construct strategic supplier partnership is an integral element to the second order construct of supply chain management (Li, Ragu and Rao, 2006). The defining elements of strategic sourcing have been identified to be: the status of supply management within the organizational hierarchy, internal coordination of supply management with other functions in a firm, active information sharing with suppliers, and comprehensive supplier development activities (Kocabasoglu and Suresh, 2006).

Since suppliers and retailers have knowledge in different domains, the combination can create unique knowledge that can be applied to improve business knowledge. Better relationships between retailers and their suppliers also improve prospects of new product acceptance (Kaufman, 2002).

Global competition and accelerating technological changes especially in information, communication and internet technologies makes competition knowledge-based, thereby affecting SCM across firms (Lang, 2001). A stronger emphasis on knowledge management as part of organizational strategy may help supply managers to manage uncertainty better. It is observed that establishment of internal knowledge management systems for organizations create a greater base for tacit learning to be leveraged. On the other hand, external knowledge management brings value chain members closer together and adds value to the product through increased quality and customer perception of brand platforms.

Koh and Tan (2006) assert that it is only knowledge management that is inadequate in many ways for managing a supply network in uncertain environment hence a new approach is needed. They linked the impact of organizational structure in knowledge transfer and utilization among the different participating functions in the perceptive of systems theory. Information sharing practices such as vendor-managed inventory give manufacturers access to more accurate demand information such as customer sales data than before.

A supply chain is used to obtain raw materials from suppliers and then after undergoing the due process, the products and services obtained are delivered to customers through an engineered flow of information (Lancioni, Smith and Oliva, 2000). A coordinated mechanism is what is used to uphold the required standards. This coordinated mechanism is termed as supply chain governance. According to Crisen (2012), he defined supply chain governance as the way in which supply chains are administered from a central place to achieve responsibility for business continuity, developing a shared sense of value within the organization, safeguarding corporate knowledge and management of human capital. Supply chain governance has changed the way organizations operate. This is as a result of integration, which enhances co-ordination of demand in order to satisfy customers' needs. Carter and Rogers (2008) pointed that Supply Chain Governance not only helps organizations streamline and manage supplier quality and supplier performance, but also enables them to identify, mitigate and manage supplier risks for key procurement and manufacturing processes.

Effective use of relevant and timely information by all functional elements within the supply chain iskey to any organization and also provides a distinguishing factor for that particular organization. The empirical findings of Christopher and Towill (2003), reveal that simplified material flow, including streamlining and making all information to be highly visible throughout the chain, is the key to an integrated and effective supply chain. Quality of information sharing includes such aspects as the accuracy, timeliness, adequacy, and credibility of information exchanged. While information sharing is important, the significance of its impact on an integrated supply chain depends on what information is shared, when and how it is shared, and with whom (McAdam and McCormack (2003).

Strategic partnering has become key in the current global market. Organizations have been forced to collaborate with other firms through joint supply chains that focus on joint planning, coordination, and process integration between the organization, its suppliers, its customers, and other partners such as the logistic providers. In addition to cost reduction, collaboration offers the advantages of business expansion to other areas, increased return on assets, improved customer service, reduced lead times, increased reliability and responsiveness to market trends, and a shorter time to market. Several options are available for achieving collaboration in a supply chain. These include; systems that transmit information between partners using technologies such as fax, e-mail, electronic data interchange (EDI); systems such as electronic hubs and portals that facilitate the procurement of goods or services from electronic marketplaces, catalogs, and auctions; systems such as collaborative planning, forecasting and replenishment (CPFR) that permit shared collaboration rather than just a simple exchange of information amongst the supply chain partners (Lall, n.d).

According to Power, D. (2005) customer satisfaction is also one of the reasons why businesses seek to integrate their processes. Customer satisfaction is increasingly becoming an important area of focus and spending for many organizations. Enterprise integration can increase customer satisfaction by making information easily available and responding to customer requests and complaints more quickly. For example, online customer self-service systems enable customers to view their account balances on demand, track orders, and change information. The customer is more satisfied because needs are met immediately, and the company saves money on personnel costs. Integrating customer information from disparate back-end systems enables improving customer interactions at every stage of a transaction, through every channel used for a customer interaction. Companies investing in Customer Relationship Management (CRM) systems are finding that integration is a large part of the implementation process.

2.4 Organizational Performance

Organizational performance comprises the actual output or results of an organization as measured against its intended outputs or goals and objectives. According to Richard and Devinney (2005), organizational performance encompasses three specific areas of firm outcomes: Financial performance (profits, return on assets, return on investment.); Product market performance (sales, market share.); and Shareholder return (total shareholder return, economic value added.).

Traditional methods of measuring a company's performance by financial indices alone have virtually disappeared from large organizations. Non-financial measures are at the heart of describing strategy and developing a unique set of performance measures that clearly communicate strategy and help in its execution (Kaplan and Norton, 2001). Hudson, Smart and Bourne (2001) concluded that although there was a widespread acceptance of the value of strategic performance measurement amongst firms that they studied, none had taken steps to redesign or update their current performance measurement systems.

Researchers have argued that internal integration of various activities in an organization will be able to enhance economic performance. Flynn, Huo and Xhao (2010) define internal integration as the degree to which two departments collaborate in the management of both inter and intra departmental processes to provide maximum value for the firm. Supply chain management best practices such as e-procurement have the capacity of acting as an integrative technology that enables integration and improvement of processes between departments (Vickery, Jayaram and Droge, 2003). Flynn et al.,

(2010) further asserts that internal integration of organizational processes is a recipe for moderated corporate performance although there is no clear elaboration on how this happens. Narasimhan, Swink and Kim (2006) concur that there exists a positive effect of e-procurement on firm performance even though no empirical evidence has confirmed this position.

The primary goal then of organizational performance is to increase organizational effectiveness and efficiency so as to improve the ability of the organization to deliver goods and services to its customers (Kaplan and Norton, 2001). Organization performance is what business executives and owners are usually frustrated about. This is because even though the employees of the company are hard-working and are busy doing their tasks, their companies are unable to achieve the planned results. Results are achieved more due to unexpected events and good fortune rather than the efforts made by the employees. Oorganizational performance is affected by myriad factors including: the lines of communication and command connecting these individuals (organizational authority structure and the degree of centralization), the resources and information to which the individuals have access, the nature of the task faced by the individuals, and the type and severity of the crisis under which the individuals operate (Elbanna and Child, 2007).

2.5 Effect of Supply Chain Integration on Organizational Performance

Supply chain consists of all activities related to the flow of goods from raw materials to the end customer.These activities are also related to fund information flow (Panayides and Lun 2009). Larson and Halldorsson (2002) defined supply chain as an organization “networking”that involves upstream and downstream relationships that yield a value to satisfy customers. A good relationship with the end customer is very important to gain a successful supply chain. Thus a supply chain must be close with its end customer to build a cooperative relationship in demand planning (Cook and Garver 2002).

Supply chain performance affects the ability to provide customer value, especially in the most basic dimension of the availability of products. Improved firm performance certainly can facilitate a number of desirable outcomes related to the economic development, growth, and resilience (Barkhamet, Gudgin, Hart and Hanvey, 2006). Supply chain practice can help a firm produce and deliver products or services to the customers at lower cost and higher speed through the improvement in supply chain performance (Kim, 2009).

Past supply chain research has shown how the sharing of order-related information reduces the upstream amplification of errors in forecasting demand signals and reduces the bullwhip effect (Lee et al. 2000). The integration of technology, people, business and processes is crucial for survival and competitive edge in the current digital age and this is not important only within the organisation but also across extended enterprises (Awad and Nassar, 2010). Supply chain management is one of the most strategic functions of an organization which can be exploited to gain a sustainable competitive advantage in the marketplace.

Research also suggests that there is value to sharing strategic information, such as information on production strategies, financial operations, and marketing, which is above and beyond the order-related information required for transactional exchanges. The rationale is that the sharing of such information can enable partnering firms to align strategic actions and adapt their plans and resource positions. For instance, the sharing of sales and inventory information should enable suppliers to better forecast demand and plan production (Seidmann and Sundararajan1997), especially when demand information cannot be accurately obtained by an analysis of historic order data.

The exchange of strategic information with partners is not, however, without risks. For example, a buyer may share information on its inventory positions with itssupplier to inform their production schedule and to facilitate vendor-managed inventory. In doing so, the buyer might besubject to higher pricing due to the visibility of its inventory positions that the supplier now has. A buyer sharing its demand information and marketing strategies with its logistics vendor to enable the vendor to plan capacity better and manage peak periods might be subject to less favorable volume discounts by the vendor (Kim 2009). Finally, a vendor may share cost and margin structures with a buyer to measure improvements in the business value that is jointly created in an effort to better coordinate inter-firm activities. In the absence of strict confidentiality agreements, the buyer might disclose such shared information to other vendors in order to secure more competitive bids from them.

2.6 Summary and Knowledge Gap

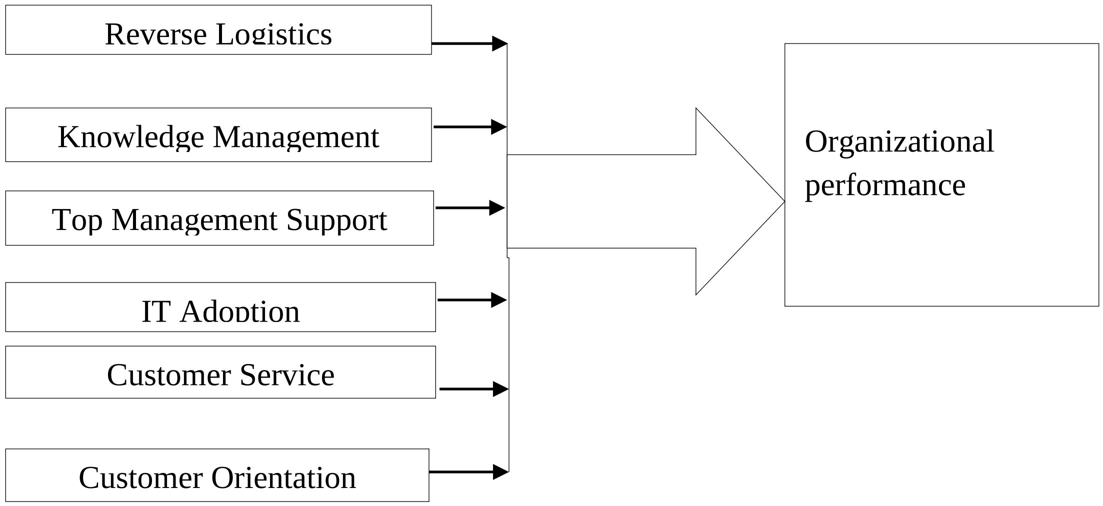
From the literature review covered in this section, it is evident that studies have been done on the need to integrate the players in a firms supply chain. Specifically the studies have looked at the role of information technology in the integration process and the benefits associated with the same. Past supply chain research has shown how the sharing of order-related information reduces the upstream amplification of errors in forecasting demand signals and suggests that there is value to sharing strategic information, such as information on production strategies, financial operations, and marketing, which is above and beyond the order-related information required for transactional exchanges.Some researchers have remarked that companies are increasingly looking for competitive success not only through the integration of internal business processes but also through the integration and alignment of intercompany processes.

However, limited empirical evidence exists with respect to the sharing of the forms of private information that are deemed strategic and to their impacts on the firm performance.Thus a comprehensive research on the impact of integration of supplier chain partners operations, more so in the Kenyan banking industry, will be useful in identifying its effect on the bank performance. This present research will seek to bridge this gap.

2.7 Conceptual Framework

The schematic diagrams below will not only guide the study but will also show the interrelationship among the key variables in the study as illustrated in Fig. 2.1.

Figure 2.1 : Schematic diagram showing variable Relationships



Source: Researcher (2015)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology that was used to carry out the study. It illustrated how the data was analyzed giving details of any models or programmes that was used in analysis with reasons as to why these particular models or programmes were applied.

3.2 Research Design

The study adopted a descriptive research design. This was because the study was concerned about univariate question in which the researcher was asked about the size, form distribution and existence integration and its effect (Cooper and Schindler, 2007) of supply chain integration on the performance of commercial banks in Kenya. The data was cross sectional in nature since it covered a cross section of all commercial banks operating in Kenya. A cross sectional design was appropriate in this case since the study was conducted at the same time across all the banks and also since a causal study was undertaken in a non-contrived setting with no researcher interference. This design has been applied successfully before in similar studies by Klein (2007) and Kosmidou et al (2005).

3.3 Population of Study

The target population of this study was all the 42 commercial banks (Appendix II). Given, the relatively small number, a census was carried out.

3.4 Data Collection

The study used both primary and secondary data. Primary data was both qualitative and quantitative and was collected using semi-structured questionnaire (Appendix I). The questionnaires consisted of four sections. Section A covered the demographic information of the firm and respondent, Section B looked at the supply chain integration practices while section C covered the effect of supply chain integration practices on the performances of the banks. Finally, section D covered the challenges of supply chain integration. The target respondents were those staff in the top management cadre that include procurement, finance, and marketing managers or staff of equivalent level. These respondents were purposefully selected since they were deemed to be more versed on the supply chain integration.

The codes that were used were obtained from the five-point Likert-type scale. The five point Likert scale was considered more exhaustive and takes into consideration majority of possible answers than a lesser scale (Kosmidou et al., 2005). These scores were then summed up and an index of the effect of supply chain integration on performance was obtained for each commercial bank (Bamberger and Cheema, 1990). Secondary data was collected from the banks financial statements and newsletters or periodicals from the institutions as well as regulators.

3.5 Data Analysis

The data obtained through the questionnaires were first checked for completeness. The questionnaires found correctly filled and fit for analysis were coded and all the data entered into statistical package for social sciences and analyzed based on descriptive statistics. The descriptive statistics to be used included the mean scores, percentages and ratios. These were then presented using tables, pie charts and bar graphs for easier interpretation.

Below is a summary of how the data collected was analyzed.

Objective/ General information	**Questionnaire**	**Data analysis**
I	Section A	Descriptive statistics
II	Section B	Descriptive statistics
III	Section C	Correlation and Regression analysis
IV	Section D	Descriptive statistics

Source Research data (2015)

A number of tools were used to test the inferential characteristics of the data. ANOVA test was used to test the uniformity or homogeneity of the data. A multiple linear regression model was done to establish the effect of the four independent supply chain integration practices on the performance of the banks.

To establish the relationship, a regression was established. For each supply chain integration practice, an overall mean was determined and matched with the overall mean of the organization performance. From this relationship, the model was generated to determine the relationship.

The regression equation assumed the following form

$Y = \beta o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \alpha$

Where:

Y is organizational performance;

β_i (i = 0 – 6) is the regression coefficient;

X_1 - Reverse Logistics

X_2 - Knowledge Management

X_3 - Top management Support

X_4 - IT Adoption

X_5 - Customer Service

X_6 - Customer Orientation

α - Unexplained variables not explained by the model

The F- test will be used to determine the significance of the regression while the coefficient of determination, $R^{2,}$ will be used to determine how much variation in Y is explained by X. This will be done at 95% confidence level and correlation analysis will be carried out to find the direction of the relationship between capital structure and the independent variables.

CHAPTER FOUR: DATA ANALYSIS, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

The research objective was to establish supply chain integration and organizational performance of commercial banks in Kenya. This chapter presents the analysis, findings and the discussion with regard to the objectives. A total of 42 questionnaires were issued out. The completed questionnaires were edited for completeness and consistency. Of the 42 questionnaires distributed, 33 were returned. The returned questionnaires' represented a response rate of 78% and this response rate was deemed to be adequate in the realization of the research objectives (Mugenda and Mugenda, 2003).

4.2 General Information of the Company

The demographic information considered in this study was the duration of bank existence. The respondent's responses are as below.

4.2.1 Duration of Bank Operation in Kenya

The duration of bank operation in Kenya was important for the study as this helps the bank to understand the local market dynamics thus adopting supply chain integration in order to improve their performance. The results were presented in table 4.2.

Table 4.1: Duration of Bank Operation in Kenya

Years	Frequency	Percent	Cumulative Percent
6 – 10	6	18.2	18.2
11 – 15	10	30.3	48.5
Over 16	17	51.5	100.0
Total	33	100.0	

Source: Research data (2015)

The results on the duration of bank operation indicated that 51.5% of the respondents said that the commercial banks have been in operation for over 16 years, 30.3% of the respondents indicated that the banks have been in operation for a period of between 11 and 15 years while 18.2% of the respondents said that the banks have operated for a period of between 6 and 10 years. The results indicated that majority of the commercial banks have been in operation in Kenya for more than 10 years and therefore they understand the local market trends and the need of effective supply chain integration in order to have competitive advantage over other banks.

4.3 Supply Chain Integration Practices

This section addressed objective one of the research. Supply chain integration has become a very important and integral part of any organization and as a result all the commercial banks were found to have integrated their suppliers with customers in one way or another. The respondents were asked to rate the extent to which the commercial banks have adopted the supply chain integration practices. The practices included reverse logistics, knowledge management, top management support, information technology adoption, customer orientation and customer service.

The descriptive analysis below shows the mean and standard deviation of the different variables of interest in the study. The effect of each independent variable on some measures of performance by the banks on a five point likert scale, ranging from 1(very small extent) to 5 (very large extent) are presented in their respective tables below.

4.3.1 Reverse Logistics

Reserve logistics helps organizations to plan and implement decisions that are beneficial to the organization thus the need to understand the extent to which the banks performance has been affected by reverse logistics.

Table 4. 2: Reverse Logistics

Reverse Logistics	Mean	Std. Deviation
The bank controls risk associated with suppliers operations	3.8467	1.0072
The bank stresses appropriate utilization of materials by its customers	3.7832	1.2825
The bank shares management techniques with other firms in the industry	2.6667	.9168

Source: Research data (2015)

The results in table 4.2 showed that the respondents were in agreement to a large extent that the bank controls risk associated with suppliers operations m=3.8467. They further indicated that the bank stresses appropriate utilization of materials by its customers m=3.7832. The respondents to a moderate extent indicated that the bank shares management techniques with other firms in the industry m=2.6667. The results show that the commercial banks controls the risks associated with supplier operations in order to reduce the costs that the bank is subjected as a result of dealing with the suppliers and also to protect the image of the bank which can be tarnished by supplier interaction. The results indicate that the management of the commercial banks does not share management techniques with other banks in the industry as this will expose the bank to competition from other banks as they understand the management practices that enable the bank to effectively compete in the industry.

4.3.2 Knowledge Management

Knowledge management is developed in a bank in order to ensure that knowledge reaches the right people at the right time, and that those people share and use the information to improve the organization's functioning and performance. Thus the need to establish the extent to which knowledge management helped the commercial banks in improving their performance.

Table 4.3: Knowledge Management

Knowledge Management	Mean	Std. Deviation
Better relationship between the banks with its suppliers has helped to improve product acceptance	3.8083	1.19707
The ability of the bank to manage effectively its supplier's knowledge has enabled it to manage uncertainty better	3.6833	1.21285
Effective management of the supplier's knowledge by the bank has increased quality of the brand platforms	3.6417	1.02062
Information sharing by allowing suppliers to access inventory managed system has increased the reliability of order fulfillment	3.3417	1.23285
Intra-organizational knowledge transfer has been enhanced by the bank's capacity to link its operational system with its suppliers	3.2173	1.14208
The bank's suppliers keeps them fully informed about the issues that affect their businesses in comparison to its competitors	2.7500	1.22474

Source: Research data (2015)

The results in table 4.3 showed that the respondents were in agreement to a greater extent that better relationship between the banks with its suppliers has helped to improve product acceptance m=3.8083. The respondents further noted that the ability of the bank to manage effectively its supplier's knowledge has enabled it to manage uncertainty better m=3.6833; effective management of the supplier's knowledge by the bank has increased quality of the brand platforms m=3.6417; information sharing by allowing suppliers to access inventory managed system has increased the reliability of order fulfillment m=3.3417 and that intra-organizational knowledge transfer has been enhanced by the bank's capacity to link its operational system with its suppliers m=3.2173. The respondents were in agreement to a moderate extent that the bank's suppliers keep them fully informed about the issues that affect their businesses in comparison to its competitors m=2.7500.

From the findings, the maintenance of better relationship between the banks with its suppliers has helped to improve product acceptance and this ensures that the banks receives value for their money and at the same time ensuring that the quality of materials used in the bank meet the required quality thus improving the image of the bank as customers would see the bank as valuing them. On the banks suppliers keeping the bank informed about issues that affect their business in comparison to its competitors, it was found to have minimum effect on knowledge management and performance as such a move by the suppliers would enable the banks to question the extent to which the suppliers were going to undertake the work given as they face competitive challenges that might affect supplier long term survival in the business.

4.3.3 Top Management Support

Leadership is the key to effective organizational performance and thus the need to understand the extent to which the bank top management influenced supply chain integration and performance. Table 4.4 below shows the results:-

Table 4.4: Top Management Support

Top management	Mean	Std. Deviation
The banks management has created an organizational culture conducive to information sharing	3.5917	1.0826
The top management of the bank provides the requisite support in sharing information between the bank and its suppliers	2.8750	1.0759
The trust between the bank and its suppliers has been developed to such an extent that fear of disclosing information to competition does not exist	2.7917	1.3180

Source: Research data (2015)

The results indicated that the respondents were in agreement that the commercial banks management had created an organizational culture conducive to information sharing m=3.5917. The respondents were also in agreement to a moderate extent that top management of the bank provided the requisite support in sharing information between the bank and its suppliers m=2.8750 and that trust between the bank and its suppliers has been developed to such an extent that fear of disclosing information to competition exists but in a moderate extent m=2.7917.

From the above finding, the creation of an organizational culture conducive to information sharing comes out as a major feature of top management support, since information sharing enables the management of the commercial banks to make informed decisions based on the customers and suppliers information and enables the bank to be more competitive. Thus, the extent to which top management support provides to the supply chain integration process definitely has a significant impact on performance the organization. Knowledge based theory advocates for sharing of information as key to value creation (Grand, 1997). According to Denisi, Hitt and Jackson (2003), knowledge based capabilities are considered to be strategically important to create and sustain competitive advantage.

At the same time, the effect of supply chain integration was found to have a minimum effect on performance of the banks due to lack of trust between the bank and its suppliers which has not been developed to such an extent that fear of disclosing information to competition does not exist. This implies that there is mistrust between the bank and the suppliers on sharing of information thus minimum effect on performance.

4.3.4 Information Technology Adoption

The adoption of technology enables the commercial banks to compete effectively with other banks and in turn ensure services are offered to their customers in good time, reduced operational costs and improved efficiency, thus the need to determine its effect on performance of commercial banks.

Table 4. 5 : Information Technology Adoption

Information Technology Adoption	**Mean**	**Std. Deviation**
Processing of transactions is real time	3.9250	.9135
The banks adoption of electronic resource planning (ERP) has delivered higher operational benefits	3.5492	.8345
The bank has experienced fewer technical difficulties since the adoption of electronic data interchange	3.4417	1.0220

Source: Research data (2015)

The results indicated that the respondents noted that the commercial banks process transactions in real time m=3.9250. They further indicated that the banks adoption of electronic resource planning delivered higher operational benefits and that the banks experienced fewer technical difficulties since the adoption of electronic data interchange with a mean score of 3.5492 and 3.4417 respectively. From the results, it can be concluded that the adoption of information technology enabled the banks and its customers to undertake transactions on real time basis thus reducing time wastage and increasing the bank competitiveness. The adoption of information technology has however not resulted in fewer technical difficulties as entry into the system of data is prone to errors while at the same time the technology can fail to work or take some commands thus technology affecting performance of the commercial banks to a lower extent.

4.3.5 Customer Orientation

Customer orientation enables the commercial banks to sufficiently understand the target customers in order to create value. The findings on the application of this practice by the commercial banks are presented in table 4.6 below:-

Table 4.6: Customer Orientation

Customer Orientation	Mean	Std. Deviation
Due to the banks strategic sourcing relationship, the bank has been able to meet customer demands better	3.8543	.9131
Better relationship between the suppliers and the bank has led to the bank's products being readily accepted by customers	3.6667	.8671
The successful integration of supplier's businesses to the bank systems forms an important practice for the bank	3.5379	.9394

Source: Research data (2015)

From the findings, the respondents indicated that the bank strategic sourcing relationship has enabled the bank to meet its customer demand better m=3.8543. They further indicated that better relationship between the suppliers and the bank has led to the bank's products being readily accepted by customers m=3.6667 and that successful integration of supplier's businesses to the bank systems forms an important practice for the bank m=3.5379. The strategic sourcing relationship enabled the banks to meet customer demands better and this affect the performance of the banks as the relationship enabled the banks to get all the available information regarding the existing and latent needs and wants of the customers thus meeting customer demands. The effect of supply chain integration on performance of commercial banks was minimal as a result of integration between supplier's businesses to the banks systems as it would have minimal effect of the customer needs but rather on service.

4.3.6 Customer Service

Customer service enables the bank to serve their customers adequately and provide an experience to the customer that will lead to customer loyalty, thus the need to understand its effects on performance.

Table 4.7: Customer Service

Customer Service	Mean	Std. Deviation
The banks' staff convey trust and confidence	4.2083	.9770
Individualized customer attention is provided by the bank's staff	4.1667	1.1671
The bank's branches are adequate for service delivery	4.0417	1.1601

Source: Research data (2015)

The results on commercial banks customer service indicated that the banks' staff convey trust and confidence m=4.2083 and that individualized customer attention was provided by the bank's staff m=4.1667. They further indicated that the bank's branches were adequate for service delivery m=4.0417. The effect of supply chain interaction on performance was high through provision of services by the bank staff who convey trust and confidence which can be attributed to the bank training on employees on how to deal with the customers' complaints and needs in order to ensure that they are satisfied and remail loyal to the bank. On the other hand, the effect on performance was established to be minimum through the bank's branches adequacy in service delivery and these can be as a result of the customers in the branches not receiving the desired service while at the same time the number of staff in the branches could be few thus affecting service delivery.

Table 4.8: Independent Variables Summary Table

Independent variable	Mean
Customer service	4.1389
Customer orientation	3.6863
Information technology	3.6386
Reverse logistics	3.4322
Knowledge management	3.4071
Top Management Support	3.0861

Source: Research data (2015)

The results indicated above show that customer service with a mean score of 4.1389 was the variable that affect performance to a great extent followed by customer orientation m=3.6863; information technology adoption m=3.6386; reverse logistics m=3.4322; knowledge management m=3.4071 while top management support with a mean of 3.0861 had the least effect on performance of commercial banks. From the results, it can be concluded that performance of commercial banks is affected more by customer service and therefore the banks ought to ensure that they put more effort in serving customers since this affects the organization performance to a large extent. Information technology is also important and this ranked third since it is core to the business function since it supports services to the customer and bank operations on a real time basis. Knowledge management and top management support ranked least since most banks still do not agree in sharing information with other banks and their top management do not support ease of sharing of information with suppliers and competitors.

4.4 Supply Chain Integration and Performance

The performance of the commercial banks is affected by the supply chain as it ensures that there is a good relationship between the bank, its suppliers and also the customer. Thus a supply chain must be close to all stakeholders in order to build a cooperative relationship in demand planning.

Table 4.9: Supply Chain Integration and Performance

Supply Chain Integration and Performance	Mean	Std. Deviation
The integration of technology, people, business and processes has enhanced the banks competitive edge in the current digital age	3.9250	.9959
The bank has been able to provide value to its customers through integration of its supply chain activities	3.7583	.8412
The sharing of information by the bank has enabled it to align its operational plans to the changes in its operating environment	3.6750	.9349
The speed of service delivery has been enhanced due to the supply chain integration process	3.6291	1.1077
The bank has been able to deliver services to customers at a reduced cost due to the supply chain integration	3.5917	1.1970

Source: Research data (2015)

From the results above, the integration of technology, people, business and processes has enhanced the banks competitive edge in the current digital age m=3.9250. The study further established that the banks have been able to provide value to its customers through integration of its supply chain activities, and that sharing of information by the banks has enabled it to align its operational plans to the changes in its operating environment m=3.7583 and m=3.6750 respectively. The results further show that the speed of service delivery has been enhanced due to the supply chain integration process m=3.6291 and that the bank has been able to deliver services to customers at a reduced cost due to integrating its supply chain m=3.5917. The performance of the banks was noted to have been enhanced by integration of technology, people, business and processes as the customers of the banks have adopted latest technological mechanisms of transactions like m-banking, internet banking and agency banking which all rely on technology. On the other hand, the performance of the commercial banks was affected to a low level by the reduction in costs charged on customers' transactions as the cost of service delivery is a component of several factors and therefore the banks have not drastically reduced the costs as a result of supply chain integration.

4.5 Challenges Facing the Banks Supply Chain Integration Process

Success of any project outcome to a great extent is affected by some factors and thus the study sought to examine the challenges faced by commercial banks in implementation of a successful integrated supply chain.

Table 4.10: Challenges Facing the Banks Supply Chain Integration Process

Challenges facing the banks supply chain integration process	Mean	Std. Deviation
Operating systems such as electronic data interchange are expensive to purchase and maintain	3.9167	1.3805
Integration systems are not locally available	3.6348	1.0490
There is opportunistic behavior due to lack of trust the supply chain	3.5917	.7560
The need to change processes/systems discourages integration with other supply chain partners	3.5572	.9409
Suppliers are not willing to share information on pricing of their products	3.4417	1.3048
There is lack of shared vision between the bank and its suppliers which affects integration	2.9583	1.2676
The management doesn't recognize the benefits associated with supply chain integration process	2.5833	1.2489

Source: Research data (2015)

The results on the challenges encountered by the banks supply chain integration was that the operating systems such as electronic data interchange are expensive to purchase and maintain, and that integration systems were not locally available m=3.9167 and 3.6348 respectively. They further indicated that there is opportunistic behavior due to lack of trust in the supply chain m=3.5917; the need to change processes/systems discourages integration with other supply chain partners m=3.5572 and that suppliers were not willing to share information on pricing of their products m=3.4417. The respondents were in agreement to a moderate extent on the lack of shared vision between the bank and its suppliers affects integration m=2.9583 and that the top management within the banks lack recognition on the benefits associated with supply chain integration process m=2.5833. The greatest challenge affecting commercial banks in supply chain integration was purchase of operating systems to aid in integration which are expensive to purchase and maintain while bank management lacking of recognition on the benefits associated with supply chain integration process was indicated as being the least challenge affecting supply chain integration.

4.6 Regression Analysis

A regression analysis was conducted to determine how the relationship between the supply chain integration (reverse logistics, knowledge management, top management support, information technology adoption, customer orientation, customer service) and organizational performance was tested using regression analysis. The results are presented below:-

Table 4.11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.087[a]	.728	.788	.34215

Source: Research data (2015)

R is the square root of R-Squared and is the correlation between the observed and predicted values of dependent variable implying that the association of 0.087 between supply chain integration practices including reverse logistics, knowledge management, top management support, information technology adoption, customer orientation, customer service and organizational performance was strong.

R-Squared is the proportion of the variance in the dependent variable organization performance that was explained by variations in the independent variables reverse logistics, knowledge management, top management support, information technology adoption, customer orientation and customer service. This implied that there was 72.8% of variance or correlation between variables in general.

Adjusted R^2 is called the coefficient of determination which indicates how the organization performance varies with variation in supply chain integration practices, reverse logistics, knowledge management, top management support, information technology adoption, customer orientation and customer service. From the table above, the value of adjusted R^2 is 0.788. This implies that, there was a variation of 78.8% of commercial banks performance varied with variation in supply chain integration practices including reverse logistics, knowledge management, top management support, information technology adoption, customer orientation and customer service and was statistically significance with P-Value of 0.01 which was less than 0.05 at a confidence level of 95.

The strength of variation of the predictor values influences the organizational performance dependent variable at 0.01 significant levels.

Table 4.8: ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.413	6	9.103	11.671	. 024[a]
	Residual	86.622	26	.780		
	Total	87.034	32			

Source: Research data (2015)

The significance value is .024 which is less that 0.05 thus the model is statistically significant in predicting how reverse logistics, knowledge management, top management support, information technology adoption, customer service and customer orientation affect the performance of commercial banks. The F critical at 5% level of significance was 3.23. Since F calculated is greater than the F critical (value = 11.671), this shows that the overall model was significant.

Table 4.93: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	P value
		B	Std. Error	Beta		
1	(Constant)	7.158	.535		4.601	.018
	Reverse logistics	.732	.455	.787	3.191	.025
	Knowledge management	.644	.626	.972	3.383	.046
	Top management	.678	.248	.619	2.606	.036
	Information technology	.432	.255	.487	1.181	.217
	Customer service	.518	.311	.523	1.982	.182
	Customer orientation	.479	.295	.617	2.420	.045

Source: Research data (2015)

From the findings in the table 4.13, the regression equation is:-

$Y = 7.158 + 0.732x_1 + 0.644x_2 + 0.678x_3 + 0.432x_4 + 0.518x_5 + 0.479x_6 + €$

Where Y is Organizational Performance

X_1= Reverse logistics,

X_2= Knowledge management,

X_3= Top management,

X_4 = Information technology,

X_5= Customer orientation

X_6= Customer service

€= Error term

From the above regression model, it was found that bank performance would be at 7.158 constant, when reverse logistics, knowledge management, top management support, information technology adoption, customer service and customer orientation are held at constant at Zero. Increase in reverse logistics**,** would lead to an increase in bank performance by a factor of 0.732 while knowledge management would lead to an increase in bank performance by a factor of 0.644.

The study also found that effective top management support led to increased performance of commercial banks by a factor of 0.678; a unit increase in information technology adoption will lead to a 0.432 increase in performance of commercial banks; a unit increase in customer service will lead to a 0.518 increase in performance of commercial banks while a unit increase in customer orientation will lead to a 0.479 increase in performance of commercial banks. This clearly indicates that there existed a positive relationship between supply chain integration practices and performance of commercial banks.

At 5% level of significance, information technology, customer service, knowledge management, customer orientation, top management and reverse logistics are found to be significant because their p-values are less than the 0.05 critical values. This implies that the independent variable stated have the greater influence on the performance of the banks. On the other hand, information technology and customer service were found not to be significant at the 5% level of significance.

4.7 Discussion

Today's volatile business environment is characterized with supply chains that are increasingly longer and more intricate, with more interconnected links, higher stakeholders' expectation, and more sources of supply chain competition. Resource based theory provides that it is important for successful organizations to develop distinct capabilities on which their future competencies will be based. The capabilities need to be unique to each organization in order to drive their competitive capability (Tushman & Anderson, 2006). As organizations become more specialized, it becomes critical for commercial banks to manage their entire network of supply chain so as to optimize their overall performance. Ninlawan, Seksan, Tossapol and Pilada (2010), noted that reverse logistics provides several benefits to manufacturers, some of which include; reducing production costs, promoting an image ofbeing environmentally responsible, meeting customer demands, protecting aftermarkets to deter independent firms (external entrants) from remanufacturing and selling organization's product thus preventing losses of both market share and brand image and finally pre-empting regulation whose consequences of noncompliance would be huge financial penalties. The results were found to be consistent with the findings of the study which established that bank controls risk associated with suppliers operations, bank stresses appropriate utilization of materials by its customers and that the bank shares management techniques with other firms in the industry.

In a business perspective, banks are actively seeking new opportunities over their competitors. For commercial banks to remain competitive, they have to embrace supply chain integration. The study found out that better relationship between the banks with its suppliers has helped to improve product acceptance, the ability of the bank to manage effectively its supplier's knowledge has enabled it to manage uncertainty better, effective management of the supplier's knowledge by the bank has increased quality of the brand platforms, information sharing by allowing suppliers to access inventory managed system has increased the reliability of order fulfillment and that intra-organizational knowledge transfer has been enhanced by the bank's capacity to link its operational system with its suppliers. These was found to be consistent with Lang (2001) findings that knowledge management as part of organizational strategy may help supply managers to manage uncertainty better. It is observed that establishment of internal knowledge management systems for organizations creates a greater base for tacit learning to be leveraged.

Managing supply chain in recent business environment is increasingly challenging. As a supply chain spans many organizations in delivering products to customers both upstream and downstream and many functional areas within a company, the implementation of information technology allows companies to increase communication and coordination of various value adding activities with their partners and between functions within their own operations (Carter and Rogers, 2008). This was found to be consistent with the findings of the study which established the commercial banks processing of transactions was real time, the banks adoption of electronic resource planning delivered higher operational benefits and that the banks experienced fewer technical difficulties since the adoption of electronic data interchange. Customer orientation enables the commercial banks to sufficiently understand the target customers in order to create value. The study found out that the bank strategic sourcing relationship has enabled the bank to meet its customers demand better, better relationship between the suppliers and the bank has led to the bank’s products being readily accepted by customers and that successful integration of supplier’s businesses to the bank systems forms an important practice for the bank. The findings were found to be in tandem with Choe (2013) findings that customer orientation is concerned with sufficient understanding of target customers to be able to create superior value. It requires that a marketer understands a buyers entire value chain. Companies can deal with uncertainty by increasing their information inter organizational links between customers and suppliers.

Supply chain integration practices are considered a powerful weapon to gain competitive advantage and linking performance measurement systems to supply chain integration practices can lead to increased success of supply chain initiatives. Relational view theory advocates for competitive advantage to be generated through value adding activities enabled by inter firm resources and routines (Richard and Devinney, 2005). Relation integration can accelerate the integration process in a supply chain within the organization.

The study found out that supply chain integration practices resulted in the integration of technology, people, business and processes has enhanced the banks competitive edge in the current digital age, the banks have been able to provide value to its customers through integration of its supply chain activities, that sharing of information by the banks has enabled it to align its operational plans to the changes in its operating environment, the speed of service delivery has been enhanced due to the supply chain integration process and that the bank has been able to deliver services to customers at a reduced cost due to the supply chain integration. The resource based view supports the above suggestion that that an organization performance is mainly determined by internal rather than external variables (Barney, 1991). Firms' follow heterogeneous historical paths and as a result, create different qualifications that affect their capabilities in different ways (Wernerfelt, 1984). Successful firms in an industry are successful because they can access a range of resources and thus gain competitive advantage.

Kim (2009) noted that supply chain integration practice can help a firm produce and deliver products or services to the customers at lower cost and higher speed through the improvement in supply chain performance. Awad and Nassar (2010) suggest that supply chain integration practices are required to enable firms to deal with increasing complexity and uncertainty in the environment.

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

5.1 Introduction

This section covers the summary of findings, conclusion, limitations and recommendations in line with the topic of study which is to establish the effect of supply chain integration on organizational performance of commercial banks in Kenya.

5.2 Summary of Findings

The study found out that reverse logistics enabled the commercial banks to control risk associated with suppliers operations, bank stresses appropriate utilization of its products by its customers and that banks share management techniques with their suppliers in the industry. Knowledge management is now recognized as an organization‘s most valuable asset and therefore it must be managed in a different way unlike other resources. Knowledge management was found to have enabled commercial banks to improve product acceptance, manage uncertainty better, increase quality of the brand platforms, increase the reliability of order fulfillment and enhance bank's capacity to link to its operational system with its suppliers.

Successful supply chain integration requires leaders to focus on the right value chain goals, led and championed by senior managers that unite an organization behind the value chain. Top management of commercial banks were found to have been at the forefront in creating a culture that is conducive for information sharing and provision of requisite support in sharing information between the bank and its suppliers. Information technology adoption was found to have enabled commercial banks to process transactions in real time, deliver higher operational benefits and experience fewer technical difficulties. Customer orientation was also found to have enabled commercial banks to meet their customer demands better. Better relationship between the suppliers and the banks led to products being produced to the customers that were readily accepted and successful integration between supplier's and the bank forms an important practice especially in the integration process.

5.3 Conclusion

The integration among the supply chain partners can be complex and requires unique capabilities that may be difficult or costly to imitate. By managing the integrative relationships better than its competitors within its supply chain, an organization can transform itself to have a competitive supply chain. This can be achieved by developing certain competencies both internal and as well as external. Commercial banks integration with their suppliers and its customers is realized as an important factor in implementing and empowering the overall integration process. The nature of banking is seen as being critical and vital in this day and age. Getting results and provision of fast service simultaneously without interference makes integration of the supply chain very vital for commercial banks since they are in the service industry.

Operating an integrated supply chain requires continuous information flow, which in turn assists to achieve a seamless service delivery. Therefore commercial banks need to establish an appropriate supply chain in order to optimize product flows and consequently provide for acceptance of their products to their customers. Commercial banks need to embark on information sharing with their suppliers, so as to provide bank products that respond to customer requirement accurately and consequently to yield results in performance, increase sales and to improve their competitiveness.

5.4 Limitations of the study

There were limitations about the objectivity of data gathered from the survey questionnaires. Although this study took all the precautionary steps to reduce the possibility of response bias and applied the procedural remedies, there was still some bias in the responses generated from the survey.

Confidentiality was a major obstruction in gathering information relating to supply chain integration practices owing to its sensitive nature. This caused difficulties in obtaining all the required responses and consequently led to reluctance of participating in the study for some of the respondents. The researcher had to inform the respondents in advance that the purpose of the research was meant for academic purpose only and not for other investigations although the same was stipulated on the questionnaire.

5.5 Recommendations for Policy and Practice

The study established that the information technology adoption has enabled the commercial banks to improve their performance and it is recommended that the banks ought to put in place technology that that supports its supply chain so that the organization can have competitive edge over its competitors while improving their performance especially their service delivery to their customers at the same time. The study further recommends that the top management in commercial banks should provide for information sharing between their organization and their suppliers so as to have the right information in regard to what their customers need and thereafter respond adequately to the customer requirement, coordinate internal processes better and offer better customer service which will lead to improved revenues and properly guided capacity planning.

The study found out that the commercial banks that have adopted supply chain integration have on overall improved performance. It is therefore recommended that the study adds greater comprehensiveness of the supply chain integration practices and enhances our understanding of the supply chain integration practices and their impact on organizational performance. From the findings, good relationships in a supply chain is needed for enhanced organizational performance.

5.6 Suggestions for Further Research

The study was undertaken on supply chain integration practices and organization performance. The study recommends that a further study should be carried out to establish ways through which public institutions could enhance supply chain integration so as to improve their performance and service to the public. A further study should be carried out to establish the challenges of integrating supply chain in public institutions and consequently how this impacts on their performance and service delivery in the public sector.

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Appendix I: Cover letter

David Owino,

P.O. Box 61227-00200,

Tel: 0720 877251,

Nairobi.

Dear Respondent,

RE: RESEARCH QUESTIONNAIRE

This questionnaire (enclosed) is designed to gather information on the effect of supply chain on organization performance of commercial banks in Kenya. This study is being carried out for a management project paper as a requirement in partial fulfillment of the Master of Business Administration, at the University of Nairobi.

Please note that this is strictly an academic exercise towards the attainment of the above purpose. You are hereby assured that the information will be treated with confidentiality. Your co-operation will be highly appreciated.

Thank you in advance for your response.

Yours Sincerely,

David Owino

Appendix II: Research questionnaire

Part A: Demographic and Respondent's Profile

1. Name of the Respondent (optional) ……………………………………….………
2. Name of your bank……………………………….………………………
3. For how long has your organization been in existence?

a) Under 5 years	[ ]	b) 6-10 years	[ ]
b) 11-15 years	[ ]	d) Over 16 years	[ ]

Section B: Supply Chain Integration Practices

4) Does your organization practice supply chain integration with your suppliers and customers?

Yes ( ) No ( )

5) The statements below describe the extent of supply chain integration practices on organizational performance. Please indicate the extent to which the bank practices the following integrations mechanism and how the same as influenced performance:

Key:

5) Very great extent 4) Great extent 3) Moderate

2) Low extent 1) Very low extent

Reverse Logistics	5	4	3	2	1
The bank shares management techniques with other firms in the industry?					
The bank controls risk associated with suppliers operations?					
The bank stresses appropriate utilization of materials by its customers?					
Knowledge Management					
Better relationship between the Bank with its suppliers has helped to improve product acceptance?					
The ability of the bank to manage effectively its supplier's knowledge has enabled it to manage uncertainty better?					
Effective management of the supplier's knowledge by the bank has increased quality of the brand platforms?					
Information sharing by allowing suppliers to access inventory managed system has increased the reliability of order fulfillment?					
Intra-organizational knowledge transfer has been enhanced by the bank's capacity to link its operational system with its suppliers					
The Bank's suppliers keeps them fully informed about the issues that affect their businesses in comparison to its competitors					
Top Management Support					
The top management of the bank provides the requisite support in sharing information between the Bank and its suppliers					
The banks management has created an organizational culture conducive to					

information sharing					
The trust between the bank and its suppliers has been developed to such an extent that fear of disclosing information to competition does not exist					
IT Adoption					
The banks adoption of electronic resource planning (ERP) has delivered higher operational benefits					
The bank has experienced fewer technical difficulties since the adoption of electronic data interchange					
Processing of transactions is real time					
Customer Orientation					
The successful integration of supplier's businesses to the Bank systems forms an important practice for the Bank?					
Due to the banks strategic sourcing relationship, the Bank has been able to meet customer demands better?					
Better relationship between the suppliers and the bank has led to the bank's products being readily accepted by customers					
Customer Service					
The banks' staff convey trust and confidence					
The bank's branches are adequate for service delivery					
Individualized customer attention is provided by the bank's staff					

6. The statements below describe the extent of supply chain integration practices on organizational performance. Please indicate the extent to which the integration practices adopted by your bank have influenced performance:

Key:

5) Very great extent **4) Great extent** **3) Moderate extent**

2) Low extent **1) Very low extent**

		5	4	3	2	1
1	The bank has been able to provide value to its customers through integration of its supply chain activities					
2	The bank has been able to deliver services to customers at a reduced cost due to the supply chain integration					
3	The speed of service delivery has been enhanced due to the supply chain integration process					
4	The integration of technology, people, business and processes has enhanced the banks competitive edge in the current digital age					
5	The sharing of information by the Bank has enabled it to align its operational plans to the changes in its operating environment					

PART D: Challenges Facing the Banks Supply Chain Integration Process

7. Kindly indicate the extent to which you agree with the following statements concerning the challenges faced in the implementation of supply chain integration process

(1 – No extent 2 – Little extent 3 - Moderate 4 – Great extent 5 – Very great extent)

Statement	**1**	**2**	**3**	**4**	**5**
Operating systems such as EDI are expensive to purchase and maintain					
Integration systems are not locally available					
The management doesn't recognize the benefits associated with supply chain integration process					
Suppliers are not willing to share information on pricing of their products					
There is lack of shared vision between the Bank and its suppliers which affects integration					
The need to change processes/systems discourages integration with other supply chain partners					
There is opportunistic behavior due to lack of trust the supply chain					

THANK YOU FOR YOUR TIME

Appendix II: List of commercial banks

1. ABC Bank (Kenya)
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank
6. CFC Stanbic Bank
7. Chase Bank (Kenya)
8. Citibank
9. Commercial Bank of Africa
10. Consolidated Bank of Kenya
11. Cooperative Bank of Kenya
12. Credit Bank
13. Development Bank of Kenya
14. Diamond Trust Bank
15. Dubai Bank Kenya
16. Ecobank
17. Equatorial Commercial Bank
18. Equity Bank
19. Family Bank

20. Fidelity Commercial Bank Limited
21. Fina Bank
22. First Community Bank
23. Giro Commercial Bank
24. Guardian Bank
25. Gulf African Bank
26. Habib Bank
27. Habib Bank AG Zurich
28. I and M Bank
29. Imperial Bank Kenya
30. Jamii Bora Bank
31. Kenya Commercial Bank
32. K-Rep Bank
33. Middle East Bank Kenya
34. National Bank of Kenya
35. NIC Bank
36. Oriental Commercial Bank
37. Paramount Universal Bank
38. Prime Bank (Kenya)
39. Standard Chartered Kenya
40. Trans National Bank Kenya

41. United Bank for Africa[2]
42. Victoria Commercial Bank

Source: Central Bank of Kenya (2014)