

**IMPACT OF LEAN SUPPLY CHAIN MANAGEMENT  
STRATEGIES ON THE PERFORMANCE OF COMMERCIAL  
BANKS IN KENYA**

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**DECLARATION**

I declare that this research project is my original work and has never been submitted to any other University for assessment or award of a degree.

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This project has been submitted with my authority as the university supervisor.

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## **DEDICATION**

This project is dedicated to my husband and children who have been my key asset to success and supported me both emotionally and financially during the time of the project. I sincerely appreciate their support and prayers that led to the completion of this project within the stipulated timeframe.

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## ABBREVIATION AND ACRONYMS

<b>APS</b>	Advanced Planning and Scheduling
<b>ERP</b>	Enterprise Resource Planning
<b>FMEA</b>	Failure Mode and Effects Analysis
<b>GDP</b>	Gross Domestic Product
<b>ICT</b>	Information Communication Technology
<b>JIT</b>	Just in Time
<b>KFS</b>	Key Factors for Success
<b>MGMT</b>	Management
<b>MRP</b>	Material Resource Planning
<b>MVA</b>	Market Value Added
<b>OEE</b>	Overall Equipment Effectiveness
<b>PDCA</b>	Plan-Do-Check-Act
<b>SMED</b>	Single Minute Exchange of Dies
<b>SOP</b>	Standard Operating Procedure
<b>SPC</b>	Statistical Process Control
<b>TOC</b>	Theory of Constraints
<b>TPM</b>	Total Productive Maintenance
<b>TPS</b>	Toyota Production System
<b>TQC</b>	Total Quality Control
<b>TQM</b>	Total Quality Management
<b>US</b>	United States of America
<b>VS</b>	Value Stream
<b>VSM</b>	Value Stream Map
<b>WIP</b>	Work in Progress

## ABSTRACT

The principle of Lean is to eliminate the waste from the system. The purpose of this study was to explore Lean Supply Chain Management strategies on the performance of Commercial bank in Kenya. The study had two objectives to achieve: to find out the lean strategies adopted by commercial Banks in Kenya and to determine the impact of lean supply chain management strategies on performance of commercial Banks in Kenya. The research design involved a cross sectional survey of all commercial banks in Kenya. Data was collected using a questionnaire that was administered through drop and pick later method. A census was employed in the stud where the target population for this study included all the 43 Commercial Banks operating in Kenya. One employee was selected from the procurement and operations department of each of the 43 Commercial Banks in Kenya. Primary data was collected using structured questionnaires with both close-ended and open-ended questions. The respondents of the study were selected from the supply chain department team of the 43 Commercial Banks in Kenya. Questionnaires were used as instruments of data collection. Secondary data was gathered from library material, bank journals and reports, media publications and various Internet search engines covering the business process management of Commercial Banks in Kenya. The data collected in the research was analyzed using descriptive statistics such as frequency distributions, percentages and frequency tables were used to summarize and relate variables. Multiple linear regression analysis was used to determine the joint relationship between independent and dependent. The findings were presented in tables. The study established that lean supply chain management strategies were not common among commercial banks in Kenya due to internal and external challenges. The study concludes that most commercial banks in Kenya have been embracing lean supply chain management strategies despite the challenges experienced form the internal and external environment. Lean supply chain management strategies have assisted the commercial banks to enhance the performance form the financial and non-financial perspective. The study recommends that top level management to make customer relations a culture of the organization by training new and existing employees, management to integrate ICT in customer service delivery, management should invest in modern models of analyzing demand and supply trends in order to overcome the challenge of overwhelming demand and commercial banks should strive and maintain long term relationships for quality of products and services. It was such an uphill task for the researcher to convince the respondents to participate in the study. Commercial banks are known to work under very strict confidentiality in order to secure any unauthorized access to information. Most of the respondents agreed to participate on condition that the information will not be divulged to any other party other than for academic purposes only. Future studies should explore the reasons behind the Challenges of lean supply chain management strategies applied by commercial banks in Kenya. Factors Affecting the Implementation of lean supply chain management Strategies among commercial banks should be investigated. Researchers should go ahead and establish the reasons behind the failure of lean supply chain management strategy implementation hence establish long term solutions. Future studies will minimize the challenges experienced during lean supply chain management strategy implementation. Future studies should try to investigate the relationship between lean strategies and performance of commercial banks in Kenya.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of Study**

In today's environment, there is the added pressure to be more socially and environmentally responsible and there are risks which need to be mitigated and managed globally (Veykus, Carter & Erin, 2006). The complexity created by ever increasing customer requirements and expectations, globalization, the pressure on cost, and the availability and access to resources, management expectation to improve profitability, increase revenue growth and capture and protect larger market share (Cooper and Lambert, 2012). In order to succeed, management must recognize that the ultimate success of an organization depends on the ability to integrate the company's network of business relationships based on lean supply chain management strategies to gain competitive edge in the dynamic and competitive market (Kallrath & Maindl, 2006).

Lean supply chain practices is a set of organizations directly linked by upstream and downstream flows of products services, finances and information that collaborate work to reduce cost and waste by efficiently and effectively pulling what is required to meet the individual customer needs. Lean supply chain strategies have their origin in the just in time philosophy, first adopted by many American and European firms in the late 1980s. Just in time is a manufacturing philosophy based on planned waste elimination and on continuous improvement in productivity. Its primary elements are: having the only required inventories when needed, enhancing quality by having zero defects, reducing lead times, incrementally revising operations, activity accomplishment at minimum costs (Simone, Andrew, Kleiner & Brian 2004).

The lean theory is applicable to all forms of production such as job shop, process and to many service environments as well. It is closely aligned with total quality management and supplier management initiatives (Simone, Andrew, Kleiner & Brian 2004). The maintenance and building of a lean supply chain revolves around six key attributes, namely: demand management, cost and waste reduction, process standardization, industry standardization, cultural change and cross enterprise collaboration (Larson & Halldorsson, 2004). In the services sector lean is not credited with the same level of popularity as in the manufacturing sector. Companies and institutions in the service sector appear to embrace many of the concepts of lean thinking without actually calling it “lean” (McManus & Kevin 2007).

Karlsson and Ahlstrom (1996) developed a model of lean production system operation. Implicit to this is the notion that the introduction of lean production enhances performance. This model contains nine principles; elimination of waste, continuous improvement, zero defects, just in time deliveries, pull of materials, multifunctional teams, decentralization, integration of functions and the vertical information systems. Lean thinking has seldom been applied to Commercial banks in comparison with manufacturing environments. However, there is much evidence to show that the application of lean in to Commercial banks in Kenya can be extremely beneficial leading to improved processing time, improved service performance and achieving more with less. The model has been associated with the practice of deciphering the value added activities from those that are waste in an organization and its supply chain (McManus & Kevin 2007).

### **1.1.1 Lean Supply Chain Management Strategies**

Supply chain management strategies encompasses the planning and management of all activities involved in sourcing and procurement, conversion and all logistics Management activities. It also includes the coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers and customers. Supply Chain management integrates supply and demand management within and across companies (Chow et al, 2008).

Chow et al, (2008) benchmarked supply chain management practices which included practices related to supply and materials management issues, operations, information technology and sharing and customer service. The findings were that a proportion of firms practicing some form of supply chain management practice were quite high, mainly with a view to improve on-time delivery. Lean thinking provides a way to re-specify value, line up value creating actions in the best sequence, conduct these activities without interruption whenever requests are made and effectively perform them (Womac and Jones, 1996).

There is no universal way of applying these lean principals and therefore every company must find its own way of implementing the lean method (Chow et al, 2008). A lean supply chain works to have products pulled through the channel using customer demand from point of sale in A supply chain, with the pull, flows back from deliveries to the store or to the customer warehouse back through to purchase orders placed on suppliers. Anything that delays or impedes this flow must be analyzed as a potential non-value added activity (Kallrath & Maindl, 2006).

Lean thinking in supply chain management is the use of lean principles to align activities across corporate functions within the firm and to manage business relationships with customers and suppliers thus eliminating waste (Wisner & Stanley, 2008). Although reducing the startup time in lean supply chain is raising flexibility within the supply chain, flexible and responsiveness to customer demand is important in the design, timing and distribution that in lean production is not given much attention (Kallrath & Maindl, 2006).

Lean thinking critics on the other hand indicate that only 10% or less of companies succeeds at implementing lean and other lean manufacturing practices (Larson & Halldorsson, 2004). Although lean thinking is typically applied to manufacturing lean techniques and focus are applicable anywhere there are processes to improve, including the entire supply chain. A lean supply chain produces just what and how much is needed, when it is required and where required. The underlying theme in a lean thinking is to produce more with fewer resources while giving the end customer exactly what they want. This means putting more focus on each product and its value stream. Lean is about eliminating waste and enhancing value (Larson & Halldorsson, 2004).

### **1.1.2 Organizational Performance**

Performance involves the accomplishment of a given task measured against preset known standards. It would be expected that overall performance determines an organizational survival. It is a set of metrics used to quantify both the efficiency and effectiveness of actions. Performance measurement framework proposed by Kaplan and Norton's (1992) balanced scorecard which is based on the principle that a performance measurement system should provide managers with sufficient information to address the questions: how do we look to our shareholders (financial perspective)?, what must we excel at (internal business

perspective)?, how do our customers see us (customer perspective)? and how can we continue to improve and create value (innovation and learning perspective)? Lean supply chain performance measurement will be measured in terms of minimal customer complaints, reduced costs of production, Just- In time customer service, minimal paper work, minimal employee contact with customers, increased online response, increased electronic transactions and continuous improvement of internal processes (Mukwana, 2010).

Mukwana (2010) contends that, performance is measured by either subjective or objective criteria; arguments for subjective measures include difficulties with collecting qualitative performance data from small firms and with reliability of such data arising from differences in accounting methods used by firms. Objective performance measures include indicators such as profit growth, revenue growth, return on capital employed. Financial consultants Stern Stewart and Co. created Market Value Added (MVA), a measure of the excess value a company has provided to its shareholders over the total amount of their investments. This ranking is based on eight more traditional aspects of financial performance including: total return for one and three years, sales growth for one and three years, profit growth for one and three years, net margin, and return on equity.

### **1.1.3 Commercial Banks in Kenya**

There has been tremendous growth in the Kenyan banking industry for the last decade. Changes in the Kenyan economy and Commercial Banks have not been spared from the impact of these changes. Lean supply chain management concepts are becoming drivers of competitive commercial banks due to increased competition, globalization, changing consumer needs and increased costs of operation. The banking sector in Kenya comprises

43 registered Commercial Banks that are licensed and regulated by the Central Bank of Kenya. There are various banking laws in Kenya that and prudential guidelines that govern and regulate the way banks are formed, operate and are managed in the country. Quality service delivery to customers by Commercial Banks in Kenya still has remained a challenge due to inappropriate lean supply chain management strategies adopted. Despite the effort of minimizing costs of operation, lean supply chain management strategies has remained a big challenge to commercial banks due to inadequate support from management and training to employees (Wainaina, 2009).

Despite the efforts of commercial banks to perform in the dynamic business environment, lean supply chain management practices has become the key drive of gaining competitive advantage in the market. With the challenge of globalization, lean supply chain management practices are driving commercial banks in Kenya to minimize wastes and maximize profits by (Afei, 2010). Commercial banks that are global players in the financial industry cannot operate without lean supply chain management practices. E-commerce practices are strategic initiatives that commercial banks are trying to adopt in order to attract and retain customers, minimize unnecessary marketing costs thus promote enhanced value chain activities. Electronic banking practices by commercial banks has become lean practice by cutting down operational costs, improving customer experience locally and internationally, provided opportunities of product innovation and continuous improvement in the system (Awino, 2009).

## **1.2 Statement of the Problem**

The application of lean supply chain management strategies is meant to lead to improved performance of managers of the supply chain, enhance timely supplies and improve quality



on supplies at costs that enable institutions use the marked resources to maximize gain to the stakeholders. This would mean that one way to achieve timely supplies and create greater values is to apply lean supply chain management thinking and practices (Karlsson and Ahlstrom, 1996). The application of lean supply chain strategies leads to the success of companies by being responsive to customer needs, cost reduction and improved internal business processes. Companies can benefit from lean strategies that will increase profitability such as introducing an environment of change towards lean thinking (Bradley, 1999). Lean practices in organizations lead to flexibility, service, cost, quality and innovation are well taken care of and contribute immensely towards a good supply chain management practice (Mukwana, 2010).

Commercial banks in Kenya are facing challenges in the supply chain practices due to stiff competition, influence of technology and globalization. Due to these challenges, performance of commercial banks has decreased tremendously due to inefficient and ineffective customer relationship strategies, customer service management, and demand management and supplier relationship. Generally, in terms of performance, and improvements service companies are far behind. Transferring lean management concept from the services might offer opportunities for improvements. Many service businesses have improved and profited by the use of lean management methods and tools. Yet the benefits have not been as nearly as impressive for service industries applying lean management principles (Afei, 2010).

Commercial Banks in Kenya are facing challenges from the internal and external environment including globalization, stiff competition, changing customer needs and

wants, increased operational costs, underutilized capacity, small extent of ICT adoption in the system and unsatisfied client needs. Studies carried out by (Afei, 2010; Muya, 2011 and Muloko, 2012) with regard to lean supply chain management strategies observed that most organizations face technological challenges when implementing lean practices in the supply chain. Other local studies carried out in Kenya by (Wainaina, 2009; Odoyo and Awino, 2009) on supply chain management strategies and performance of commercial entities observed that organizations in Kenya were yet to fully embrace the supply chain management strategies and most of the practices used were borrowed from the procurement philosophy.

However, arising from the above findings of previous studies, there are many areas that have not been studied with regard to lean supply chain management strategies on performance of Commercial Banks in Kenya. The study will seek to answer the question; what is the impact of lean supply chain management strategies on performance of Commercial Banks in Kenya?

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

The specific objectives of the study will be:

- i. To find out the lean strategies adopted by commercial Banks in Kenya.
- ii. To determine the impact of lean supply chain management strategies on performance of commercial Banks in Kenya.

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

The research findings are expected to contribute to a better understanding of lean supply chain management strategies on the performance of Commercial Banks in Kenya.

It will help various shareholders to make strategic lean decisions in procurement, marketing Human Resource management and distribution in order to survive in the competitive industry.

Commercial Banks in Kenya will gain an In-depth understanding on how to meet customer needs cost effectively thus zero waste tolerance. Innovative ways of satisfying customers will be established.

The Government will be in a position to formulate lean policies that are aimed at increasing productivity and safeguarding the interests of Commercial Banks in Kenya based on lean practices on customer satisfaction.

Scholars and Researcher will form a basis upon which further research on the same will be based. The findings will enable the researchers understand the necessary resources which may be required in future related studies in lean management practices.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

The chapter outlines; the five principles of lean thinking, components of the lean supply chain, lean practices in the service industry, lean supply chain management strategies and performance empirical studies, lean supply chain management strategies and conceptual framework.

### **2.2 The Five Principles of Lean Thinking**

**Identify Customers and Specify Value:** The starting point is to recognise that only a small fraction of the total time and effort in any organisation actually adds value for the end customer. By clearly defining Value for a specific product or service from the end customer's perspective, all the non-value activities can be removed (Danford & Matthew, 2007). **Identify and Map the Value Stream:** The Value Stream is the entire set of activities across all parts of the organisation involved in jointly delivering the product or service. This represents the end-to-end process that delivers the value to the customer (Danford & Matthew, 2007). **Create Flow by Eliminating Waste:** This involves mapping the value stream which involves only 5% of activities that add value, this can raise to 45% in a service environment. Eliminating this waste ensures that your product or service "flows" to the customer without any interruption, detour or waiting (Jusko & Jill 2007).

**Respond to Customer Pull:** This is about understanding the customer demand on your service and then creating your process to respond to this. Such that you produce only what the customer wants when the customer wants it (Jusko & Jill 2007). **Pursue Perfection:**

Creating flow and pull starts with radically reorganising individual process steps, but the gains become significant as the entire steps link together. As this happens more and more layers of waste become visible and the process continues towards the theoretical end point of perfection, where every asset and every action adds value for the end customer (Kallrath & Maindl, 2006).

### **2.3 Components of the Lean Supply Chain**

Lean supply chain management comprises various elements that are integrated for efficiency and effectiveness of the organization. Both elements should be present for any lean enterprise firm in the modern context. Competitive firms need to understand and measure the extent to which each element adds value in the supply chain (Kallrath & Maindl, 2006). Components of lean supply chain include; lean suppliers, lean procurement, lean manufacturing, lean warehousing, lean transportation and lean customers. According to Lambert, (2012) lean suppliers are able to respond to changes. Their prices are generally lower due to the efficiencies of lean processes, and their quality has improved to the point that incoming inspection at the next link is not needed.

Lean suppliers deliver on time and their culture is one of continuous improvement (Jusko & Jill 2007). To develop lean suppliers, organizations should include suppliers in their value stream. They should encourage suppliers to make the lean transformation and involve them in lean activities. This will help them fix problems and share savings. In turn, they can help their suppliers and set continually declining price targets and increasing quality goals (Halldorsson, Kotzab, Mikkol, & Skjoett-Larsen, 2007). Some lean procurement processes are e-procurement and automated procurement. E-procurement conducts transactions, strategic sourcing, bidding, and reverses auctions using Web-based

applications (Kallrath & Maindl, 2006).

Automated procurement uses software that removes the human element from multiple procurement functions and integrates with financials (Harland, 2012). The key to lean procurement is visibility. Suppliers must be able to "see" into their customers' operations and customers must be able to "see" into their suppliers' operations. Organizations should map the current value stream, and together create a future value stream in the procurement process (Simchi-Levi & Kaminsky, 2007). They should create a flow of information while establishing a pull of information and products (Danford & Matthew, 2007). Lean service systems produce what the customer wants, in the quality the customer wants, when the customer wants it, and with minimum resources.

According to Lambert (2012) lean warehousing means eliminating non-value added steps and waste in product storage processes. Typical warehousing functions are; receiving, put-away/storing, replenishment, picking, packing and shipping (Harland, 2012). Lean concepts in transportation as suggested by Cooper, (2000) include; core carrier programs, improved transportation administrative processes and automated functions, optimized mode selection and pooling orders, combined multi-stop truckloads, cross docking, right sizing equipment, import/export transportation processes and inbound transportation and backhauls. The keys to accomplishing the concepts above include mapping the value stream, creating flow, reducing waste in processes, eliminating non-value-added activities and using pull processes (Danford & Matthew, 2007). Lean customers are interested in establishing effective partnerships they are always seeking methods of continuous improvement in the total supply chain to reduce costs. Lean customers expect value from

the products they purchase and provide value to the consumers who they interact with (FAO, 2007).

Lean thinking is a total internal lean optimization process that emphasizes the prevention of waste in terms of any extra time, labor, or material spent producing a product or service that does not add value to it. A lean system's unique tools, techniques, and methods can help organization to reduce costs, achieve just-in-time delivery, and shorten lead times (Lavassani, Movahedi & Kumar, 2009). As lean systems are customer focused and driven this approach makes sure that products or services produced and delivered at the right time in the right quantity at the right location at the right time with minimum costs incurred (Locher, & Drew, 2007).

A lean system allows production of a wide variety of products or services, efficient and rapid changeover among them as needed, efficient response to fluctuating demand, and increased quality (Schonberger & Richard, 2007). Lean approach encourages a rapid response to the customers ever changing demands with focus on mass customizations rather than mass production. Lean systems make the work flow more efficient, productive, and flexible to changes in requirements (Simone & Kleiner, 2004).

To develop a lean supply chain, there is need to apply lean to the supply chain as a system (Simchi-Levi & Kaminsky 2007). To accomplish this, lean thinking changes the focus of management from optimizing separate technologies, assets, and vertical departments to optimizing the flow of products and services through entire value streams that flow horizontally across technologies, assets, and departments to customers. It is through this

holistic, enterprise-wide approach to lean implementation that the theory extends beyond functional strategy to a broader supply chain strategy employed by the company (Simone, et al, 2004). Eliminating waste along entire value streams, instead of at isolated points, creates processes that need less human effort, less space, less capital, and less time to make products and services at far less costs and with much fewer defects, compared with traditional business systems. Companies are able to respond to changing customer desires with high variety, high quality, low cost, and with very fast throughput times. The strengths of lean approach are more immediate and practical focus on waste, flow and flexibility (Stimson and William, 2005). A lean organization optimizes the flow of products and services to its customers. It delivers customer value by; reducing lead times, improving quality, eliminating waste, reducing the total costs, engaging and energizing people (Jusko & Jill 2007).

Lean processes provide a way to do more with less, less human effort, less equipment, less time, and less space while coming closer and closer to providing customers with exactly what they want, when they want it, where they want it, and at a price that meets their cost/value expectations (Simchi-Lev & Kaminsky, 2007). After years of benchmarking and observation in organizations around the world, Womack & Jones (2009) have found that converting a classic batch-and-queue production system to lean production helps an organization achieve the following results for manufacturing: Labor productivity is doubled all the way through the system for direct, managerial, and technical workers and from raw materials to delivered product.



At the same time, production throughput times are cut by up to 90% with a subsequent reduction in inventory in the system by up to 90% as well (Cooper, Lambert, & Pagh, 2012). Errors reaching the customer and scrap within the production process are typically cut in half, as are job-related injuries and other undesirable side-effects of a non-lean production process (Haag, Cummings, McCubbrey, Pinsonneault, & Donovan, 2006). Time-to-market for new products is often halved, meaning that a wider variety of products within product families can be offered at very modest additional cost. The capital investments required to implement the lean approach are very modest, even negative, if facilities and equipment can be freed up and sold (Cooper, Lambert, & Pagh, 2012).

## **2.5 Lean Practices in the Service Industry**

Implementing lean concepts means breaking old patterns and installing new ones. To accomplish this, an organization needs a whole new set of tools and a framework for applying them. Lean processes merge several elements to form an integrated whole, which aligns the various parts of an organization to make a change of great magnitude (Ketchen & Hult, 2006). Lean companies work cooperatively with their customers. Creating high levels of value often requires close relationships with the customers. Value is often added more by the additional services and close cooperation than by the attributes of the products themselves (Ketchen & Hult, 2006).

Service quality is perceived by customers is the extent of discrepancy between customer's expectations and their perceptions of actual service performance (Simchi-Lev & Kaminsky, 2007). This implies that quality of a service is very subjective and cannot be grasped in easy indicators like in manufacturing. However some dimensions of quality in service operations can be described as tangibles, reliability, responsiveness, assurance and empathy

(Cooper, Lambert, & Pagh, 2012). In order know the dimensions classification can help to organize and structure the different aspects, which need to be considered for the management of services. There are many ways to structure the manifold types of services offered in the market (Schonberger & Richard, 2007). Services can be roughly categorized in personal services, infrastructure services, distribution services, government services, business services, manufacturing services, and value added services.

Generally, Lean approach is a systematic approach to identify and eliminate elements of a process that do not add value to the final outcome of the process (Kallrath, & Maindl, 2006). Lean can be seen as a concept addressing the quality, cost and delivery of a company's business processes by using an integrated set of principles, methods and tools. Furthermore, Lean is a philosophy of leadership, teamwork and problem solving, resulting in a process of continuous improvement throughout the entire organization by focusing on the needs of the customer, empowering employees. Thus lean centers the process that delivers and is less about its final outcome, the actual product or delivery respectively (Schonberger & Richard, 2007).

Furthermore, services can be distinguished according to the degree of customer involvement and repeatability of tasks performed in service production. Schemmer proposed the service process matrix to demonstrate that service management problems are common among different service industries (Schemmer, 1986). Within this matrix, services are classified according to two dimensions that significantly affect the character of the service production and delivery process. The repeatability on the ordinate is considered from the service organization's point of view and refers to similarity by stage rather than by

individual customer (Lavassani, Movahedi & Kumar, 2009).

While the broad stages may have high repeatability, the detailed tasks to be done may be very dissimilar. On the abscissa customer involvement refers to the frequency with which service providers get in contact with the actual (external) customers. It does not take into account the length of contact between provider and customer; rather it describes the ability of the customer to affect the nature of the service being delivered personally. The boundaries in this figure are not as strict as displayed. In reality they are fuzzy and can be considered as continuous spectrums (Simchi-Lev & Kaminsky, 2007).

Service organizations require special management approaches that go beyond simply adapting management techniques prevailing in manufacturing organizations. The distinctive characteristics discussed above enhance the view to managerial service approaches to a systems view including the customer as a participant in the service process. Thus the customer should be considered as an input that is being transformed by the service process into an output with some degree of satisfaction (Locher, & Drew, 2007). The position of a service operations manager includes both production and marketing in an open system with the customer as a partner in the value creation process. The traditional manufacturing separation of the production and marketing functions with finished-goods inventory as an interface is neither possible nor appropriate in service organizations. By necessity, the operations and marketing functions are integrated for service organizations (Simchi-Lev & Kaminsky, 2007).

Customer expectations and satisfaction is highly subjective and is difficult to grasp and measure. Simultaneity of production and consumption of services requires accurate time planning with respect to potential adaption due to suddenly adjusted customer specification (Simchi-Lev & Kaminsky, 2007). Managing customer experience is as important as managing the actual outcome of service processes. The invisible nature of service processes makes them far more difficult to manage compared to manufacturing processes. It is often impossible to overlook material flow in service processes and to keep track where any given piece of work is located at any point in time. In addition service processes and their activities are often much more complex than manufacturing activities, which even more complicates service management (Lavassani, Movahedi & Kumar, 2009).

In order to create commitment for lean implementation, specific target setting, time- and resource-planning for the improvements should be contracted and agreed with all the staff and continuously updated and communicated. The major difficulties many companies encounter in attempting to apply Lean are a lack of direction, a lack of planning, and a lack of adequate project sequencing. The knowledge of tools in particular and techniques is often not considered as a problem. For implementing lean successfully, the service managers have to determine what the business customer needs, what the employees are connected with, and what the senior leaders support (Simchi-Lev & Kaminsky, 2007).

Change initiatives are often supported and represented through a person who is responsible for triggering, overlooking and moderating the change processes. This concept should also be applied in doing a lean transformation in a service organization (Lavassani, Movahedi & Kumar, 2009).: an influential person with strong multidisciplinary expertise and strong

social skills can act as a process manager or value stream manager, supervising cross functional teams elaborating the improvements on an operational basis (Lavassani, Movahedi & Kumar, 2009). Ultimately, for lean implementation in an organization it is beneficial to start with adopting lean principles to one certain part of the organization as a 'test balloon'. Setting up a model rollout in one area of the organization as a fully functioning microcosm of the entire process allows senior managers to conduct experiments and smooth out the kinks. It also entails excitement among all employees enterprise wide paving the way for the broad transformation effort that follows up (Ketchen & Hult, 2006).

## **2.6 Lean Supply Chain Management Strategies and Performance**

Lean supply chain management strategies entail; customer relationship management, customer service management, demands management and supplier relationship. Lean systems provide value addition services to customer service delivery in the market and they include; speed and responsiveness to customers, reduced inventories, supply chain as a competitive weapon, path forward to a lean supply chain, new product development. According to Kouvelis, Chambers and Wang (2006) lean systems allow a supply chain to not only to be more efficient, but also faster. As the culture of lean takes over the entire supply chain, all links increase their velocity. A culture of rapid response and faster decisions becomes the expectation and the norm. Slow response or no response becomes the exception, rather than the rule (Jusko & Jill, 2007).

In the lean paradigm, inventory is considered waste (Veykus, Renee, & Erin, 2006). Many companies today produce directly into trailers and maintain no other finished goods inventory. All quality inspections and checks are performed within the process, rather than

after production are complete. In this true make-to-order scenario, all goods are shipped directly to the next link in the supply chain when the trailer is full, and overproduction is not possible and cannot be tolerated. No space is designated to store finished goods (Hines, 2004). The system is not designed to carry them. The elimination of bottlenecks is one goal of a lean supply chain, but a bottleneck will always exist to some degree. Raw material inventory is a different matter. Although the leanest organizations have arranged just in time deliveries to support manufacturing, this approach requires the absolute highest degree of competency and coordination within the supply chain (Veykus, Carter & Erin, 2006).

According to Cooper (2012), traditional mass production tries to minimize unit costs by increasing total production over the life cycle of the product. High development costs are the result of this model. To recover the enormous development and initial capital costs sunk into the product before it was produced; mass producers forecast and run long production cycles. Consumer preferences and variety suffer in this scenario. Costs still need to be minimized, but not at the expense of what more sophisticated consumers now demand (Kallrath & Maindl, 2006). A strong supply chain enables the member companies to align themselves with each other and to coordinate their continuous improvement efforts (Kallrath & Maindl, 2006). This synthesis enables even small firms to participate in the results of lean efforts. Competitive advantage and leadership in the global marketplace can only be gained by applying lean principles to the supply chain. Thought, commitment, planning, collaboration, and a path forward are required (Chow et al, 2008).

According to Chow et al. (2008) Lean is a cooperative process for survival and for success. Supply chains that want to grow and continue to improve must adopt lean. Lean concepts

require an attitude of continuous improvement with a bias for action. The concepts of lean apply to all elements of the supply chain, including support departments such as product development, quality, human resources, marketing, finance, purchasing, and distribution. The challenge is to bring all of these areas out of their traditional silos and make them work together to reduce waste and create flow. Duplication and a lack of appropriate and timely communication run rampant in these traditional organizations. A lean supply chain is proactive and plans for the unexpected by positioning all resources for effectiveness. Downturns in demand can be addressed without layoffs or significant productivity losses (Larson & Halldorsson, 2004).

Movahedi, Lavassani and Kumar, (2009) lean promotes minimizing new product development time and expense. This delivers the product to market faster, making it easier to incorporate current requirements into the product. Lean also promotes the use of less capital-intensive machines, tools, and fixtures, which results in more flexibility and less initial cost to recover (Schonberger & Richard, 2007). As a result, product life cycles may be shorter and product developments incorporated in newer versions of the product more frequently. Profitability does not suffer and brand loyalty is increased, as customers prefer to buy products and services from a perceived innovator (Kallrath & Maindl, 2006).

## **2.7 Empirical Studies**

A study carried out by Wainaina (2009) on supply chain management best practices in large private manufacturing firms in Kenya" identified that lean enterprises experience challenges like; insufficient monitoring and control to the suppliers' delivery time, lack of suppliers engagements, lack of supply chain integration, and collaboration especially with trade marketing and distribution teams, lack of close inventory review out of not having

periodical checks, lack of clear responsibility line inside supply chain management, lack of understanding and visibility to the desired marketing activities, lack of understanding and recognition to the production constraints and management, as well as capacity planning

A study carried out by Awino (2009) on selected strategy variables on firm's performance: A study of supply chain management in large private manufacturing firms in Kenya indicated that various challenge which include; resistance to change by management and inadequate technology to support the concept were key hindrances of the practice. The key aspect of supply chain management practices according to Tan et al (2002) were supply chain integration, information sharing, customer service management, geographic proximity, and JIT capabilities. Simone and Kleiner (2004) focused on five practices at supply chain level that are a key to create supply chain responsiveness. They include outsourcing, strategic supplier partnerships, customer relationship, information sharing, and product modularity. Locher and Drew (2007) also conducted the research regarding supply chain management practices; they investigated long-term relationship, cross-functional teams, supplier base reduction, and supplier involvement.

The same with McManus and Kevin (2007) also examined in their study long-term relationship, information sharing, cooperation process integration and supply chain leadership underlying the supply chain management practices. Schonberger and Richard (2007) identified supply chain management practices in form of strategic supplier partnership, customer relationship, and information sharing. This research adopts the same supply chain management practices (supplier partnership, customer relationship and information sharing) (Simone, Andrew, Kleiner & Brian 2004).



## **2.8 Lean Supply Chain Management Strategies**

This section outlines the customer relationship management strategy, customer service management strategy, demand management strategy and supplier relationship management strategy.

### **2.8.1. Customer Relationship Management Strategy**

Customer relationship management strategies entail; identify customers and values where only a small fraction of the total time and effort in any organization adds value for the end customer. By clearly defining value from the end customer's perspective, all the non-value activities can be targeted for removal. Identify and map the value stream will represent the end-to-end process that delivers value to the customer; understand their needs and identify how you are delivering on them. Create flow by eliminating waste like when the value stream is first mapped, only 5% of activities add value. Eliminating this waste ensures the product or service 'flows' to the customer without any interruption, detour or waiting (Muloko, 2012).

Establish/respond to customer pull by understand the customer demand and create the process to respond to this, so that only what the customer wants when they want it, is produced and finally, seek perfection through creating flow and pull shows more and more layers of waste as the process continues towards theoretical perfection, where every asset and every action adds value for the end customer. Lean Thinking hones working practices so that people, materials and resources operate together to eliminate waste, allowing the project to run at optimum efficiency. In Lean Thinking, every activity undertaken can be considered in terms of whether it adds value or falls into one of the eight classes of waste:

overproduction, waiting, transportation, non-value-added processing, inventory, under-utilizing people, defects and motion (Wainaina, 2009).

### **2.8.2 Customer Service Management Strategy**

Effective lean strategies will lead to improved quality service delivery to customers in the banking industry hence improved performance of the commercial banks in terms of revenue growth and expanded market share. Reliability, responsiveness, tangibles, assurance, and empathy encompass quality aspects of banking services from customer point of view (Kotler, 2007). To develop effective lean supply chain management strategies, managers need insights into how the various attributes of a service are valued by the current and prospective customers within that segment; they should integrate business with technology, engage people, and adopt best practices for value addition and results.

### **2.8.3 Demand Management Strategy**

Demand management is a unified method of controlling and tracking business unit requirements and internal purchasing operations. It helps organizations remain engaged in their supplier relationships and related advantages. Organizations use demand management systems to address external spending factors, arrange purchase orders and eradicate waste. (Wainaina, 2009). Demand management focuses on the volume of products that are purchased from providers, rather than individual product pricing, in contrast to conventional sourcing initiatives. Demand management is also known as consumption management or strategic spend management. Demand management begins with an in-depth perception of existing business requirements, historical buying behavior and expected requirement for the service or product sourced by an organization. This research includes an assessment of purchase orders, service or product specifications and strategic business

plans (Afei, 2010).

Building overall performance measures and essential performance indicators is vital to keeping track of demand and potential intervention. The accumulated data can result in better demand forecasts, which may be incorporated with an extensive supplier-communications program. These details help suppliers handle assets more effectively, which reduces expenditures (Odoyo and Awino, 2009). Advantages of demand management include; screens the growth and decline of the quantity of transactions between suppliers, monitors all related expenditures, illustrates the reasoning behind continuing to strengthen supplier relationships - internally and externally. Demand management is developing into a widely accepted strategy preferred across a variety of organizations and sectors, like telecom and financial institutions. Many organizations that use demand management to target indirect spent sections also use the approach for more complicated spent categories, such as travel, direct materials and technology (Muloko, 2012).

#### **2.8.4 Supplier Relationship Management Strategy**

Supplier relationship management (SRM) is the discipline of strategically planning for, and managing, all interactions with third party organizations that supply goods and/or services to an organization in order to maximize the value of those interactions. In practice, SRM entails creating closer, more collaborative relationships with key suppliers in order to uncover and realize new value and reduce risk. In practice, SRM expands the scope of interaction with key suppliers beyond traditional buy-sell transactions to encompass other joint activities which are predicated on a shift in perspective and a change in how relationships are managed, which may or may not entail significant investment (Muloko,

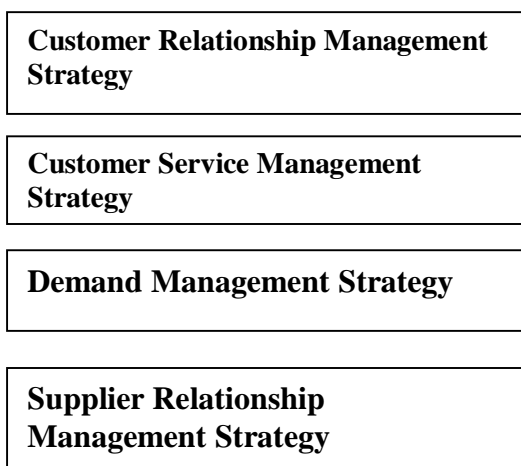
2012).

Supplier relationship management (SRM) is the systematic, enterprise-wide assessment of suppliers' assets and capabilities with respect to overall business strategy, determination of what activities to engage in with different suppliers, and planning and execution of all interactions with suppliers, in a coordinated fashion across the relationship life cycle, to maximize the value realized through those interactions (Odoyo and Awino, 2009). The focus of SRM is to develop two-way, mutually beneficial relationships with strategic supply partners to deliver greater levels of innovation and competitive advantage than could be achieved by operating independently or through a traditional, transactional purchasing arrangement. Effective SRM requires not only institutionalizing new ways of collaborating with key suppliers, but also actively dismantling existing policies and practices that can impede collaboration and limit the potential value that can be derived from key supplier relationships (Muya, 2011).

## 2.9 Conceptual Framework

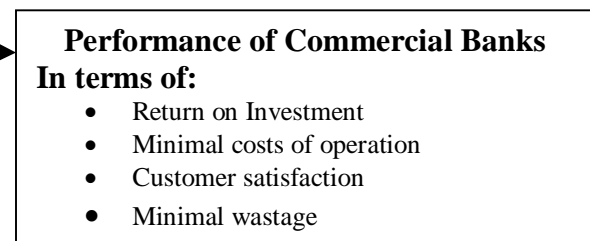
**Figure 1; Conceptual Framework**

### Independent Variables



(Author, 2014)

### Dependent Variables



## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This section outlines; research design target population, data collection methods and techniques and data analysis method.

### **3.2 Research Design**

Krishnaswami (2003) defined the research design as an arrangement of conditions for collection and analysis of data in a manner that aimed to combine relevance to the research purpose with economy in procedures. Therefore, the design is a framework used to attach the research components together. This part dealt with the methodology and procedures that were used in the study. The research design therefore is seen as a conceptual structure within the research conducted with an intention to explore new knowledge to a recent study.

This study adopted descriptive survey research design aimed at establishing the Influence of Lean Supply Chain Management Strategies on Performance of Commercial Banks in Kenya. A descriptive study was concerned with finding out the what, where and how of a phenomenon and a cross-sectional survey design was chosen since in cross-sectional surveys, data was collected at one point in time from sample selected to represent a larger population (Mugenda, 2003). The descriptive study aimed at obtaining information that could be analyzed, patterns extracted and comparison made for the purpose of clarification and provision of basis for making decisions. Both qualitative and quantitative data was obtained for comparison purposes.

### **3.3 Population**

The target population for this study included 43 Commercial Banks operating in Kenya. One employee was selected from the procurement and operations department of each of the 43 Commercial Banks in Kenya. A census was conducted since the population was small; 43 commercial banks in Kenya

### **3.4 Data Collection**

Primary data was collected using structured questionnaires with both close-ended and open-ended questions. The respondents of the study were selected from the supply chain department team of the 43 Commercial Banks in Kenya. Primary data was collected from respondents who were based in the head office; one employee; that was the head of operations and the other head of procurement or their equivalent was selected from the 43 Commercial Banks in Kenya by the use of questionnaires as the main instruments of data collection (See appendix II). Questionnaires were administered to respondents by the researcher during working hours. Drop and pick later method were applied where respondents had no time to respond immediately. Secondary data was gathered from library material, bank journals and reports, media publications and various Internet search engines covering the business process management of Commercial Banks in Kenya.

### **3.5 Validity and Reliability of Research Instrument**

Validity of the research instrument was determined through seeking opinions of experts in the field of study especially in the department of Procurement in Commercial Bank operating in Nairobi County. This facilitated the necessary revision of the research instrument. Reliability of the research instrument was enhanced through a pilot study that was carried on 2 Commercial Banks operating in Nairobi County, Kenya.

### **3.6 Data Analysis**

The data collected in the research was edited, coded and entries made into statistical software (Statistical Package for Social Sciences, SPSS version 20). This involved converting quantitative (nominal and ordinal data) into numerical codes. The first objective was analyzed qualitatively since the respondents' opinion and views were evaluated by the researcher. The second objective was analyzed using multiple linear regression analysis to establish the relationship between independent variables (Customer Relationship Management Strategy, Customer Service Management Strategy, Demand Management Strategy and Supplier Relationship Management Strategy) and dependent variable (Performance of Commercial Banks). Descriptive statistics such as frequency distributions, percentages and frequency tables were used to summarize and relate variables which were attained from the administered questionnaires.

## **CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION**

### **4.1 Introduction**

This study was carried out to establish the impact of lean supply chain management strategies on the performance of commercial banks in Kenya. Data was collected from supply chain managers, procurement managers and operations managers who were in charge of supply chain functions in their respective banks. The findings are presented as follows;

### **4.2 Response Rate**

A total of 55 questionnaires were distributed to commercial banks through their headquarters based in Nairobi. Out of the 55 questionnaires, 43 were returned to the researcher. This represents a response rate of 99%. This percentage was considered sufficient for this study. The high response rate was achieved due to face to face administering of the questionnaires by the researcher.

### **4.3 Bank Operation**

The respondents of the study were asked to indicate the period of which their banks operated in the Kenyan market. The following were the findings as shown in Table 4.1 below:



**Table 4.1 Bank Operation**

<b>Years</b>	<b>Frequency</b>	<b>Percentage (%)</b>
5 – 10 years	6	13%
11 – 15 years	9	20%
16 – 20 years	15	34%
Over 20 years	12	28%
Less than 5 years	0	0%
<b>Total</b>	<b>43</b>	<b>100</b>

**Source: Research Data (2014)**

As shown in Table 4.1, 34% of the respondents indicated that their banks had operated for a period of 16-20 years. 28% of them indicated that their banks had operated for a period of over 20 years in the local market. 20% indicated that their banks had operated between 11-15 years. 13% indicated that they had operated for a period of 5-10 years. None of them indicated less than 5 year.

#### **4.4 Size of the Bank**

The respondents of the study were asked to indicate the size of their banks. The following were the findings as shown in Table 4.2 below:

**Table 4.2: Size of the Bank**

<b>Size</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Large	32	74%
Medium	6	13%
Small	2	5%
<b>Total</b>	<b>43</b>	<b>100</b>

**Source: Research Data (2014)**

As shown in Table 4.2, 74% of the respondents indicated that their banks were large size based on the market share and asset base. 13% of them indicated that they were medium size while 5% of them were small size.

#### **4.5 Lean Supply Chain Management Strategies**

The researcher wanted to establish whether respondents understood lean supply management strategies. Majority (90%) of them indicated that they understood lean supply chain management strategies since they applied them for efficiency and effectiveness.

##### **4.5.1 Customer Relationship Management Strategy**

The respondents of the study were asked to indicate the extent to which they applied customer relationship management strategy. The following were the findings as shown in Table 4.3 below:

**Table 4.3: Customer Relationship Management Strategy**

	N	To a Very Large Extent [5]	To a Large Extent [4]	To a moderate Extent [3]	To a small Extent [2]	Not At all [1]	Mean Score	Total	S.E
Continuous research is conducted on customer products/service	43	4.6	22.2	12.4	61.0	0.00	2.41	100	.194
Customers are attracted and maintained	43	4.5	22.2	12.1	61.1	0.00	2.23	100	.194
There is close relationship with customers	43	0.00	0.00	0.00	18.1	82.0	2.23	100	.194
There are minimal human interaction during service delivery	43	4.8	22.1	0.00	12.3	61.4	2.17	100	.194
Reduced waiting time is experienced by the customer	43	4.6	0.00	12.3	61.2	22.3	2.17	100	.194
Customers access services without delay	43	4.9	12.2	22.2	61.0	0.00	2.09	100	.194
Customers are given an opportunity to measure the service they get	43	0.00	0.00	17.1	34.1	48.8	2.06	100	.105

**Source: Research Data (2014)**

As shown in Table 4.3, 61% of the respondents indicated that continuous research on products and services by their banks were on a small extent due to costs that were associated with a mean of 2.41. 61% of them indicated that little efforts were put in place by their commercial banks to attract customers and maintain long term relations since their banks did not carry out periodical research with a mean of 2.23. 61% of them said that there was human interaction during customer service delivery due to inadequate technology

in the value chain activities with a mean of 2.17.

Majority, 61% of them indicated that customers did not experience reduced waiting time since most of the services were not automated with a mean of 2.17. Majority (61%) of the respondents indicated that customers experienced delays in service access and this affected their satisfaction with a mean of 2.09. 48% of the respondents indicated that customers were not given an opportunity to measure services they got from their commercial banks due to poor mechanisms of measurement that were in place with a mean of 2.06.

#### 4.5.2 Customer Service Management Strategy

The respondents of the study were asked to indicate the extent to which they applied customer service management strategy. The following were the findings as shown in Table 4.4 below:

**Table 4.4: Customer Service Management Strategy**

	N	To a Very Large Extent [5]	To a Large Extent [4]	To a moderate Extent [3]	To a small Extent [2]	Not At all [1]	Mean Score	Total	S.E
Customers rely the bank services always	43	2.4	2.4	17.1	26.8	51.2	4.22	100	.154
Customers are royal due to satisfaction	43	0.00	0.00	29.3	41.5	29.3	4.00	100	.121
Technology enhance customers service	43	22.2	2.2	39.0	2.4	34.1	4.00	100	.148
Minimal complaints are experienced	43	0.00	2.2	34.4	39.0	24.4	3.85	100	.129
Timely feedback is given to customers	43	0.00	2.1	34.2	39.0	24.4	3.85	100	.110
Customers get instant	43	4.9	4.8	22.0	24.4	43.9	3.78	100	.162

solutions without delay									
Minimal employee motion at the workplace	43	4.9	4.7	22.0	24.4	43.9	3.78	100	.162
There is good communication among workers and employees	43	0.00	34.2	17.1	48.7	0.00	2.11	100	.105
Minimal waste of unused human talent	43	0.00	0.00	17.1	33.6	48.5	2.11	100	.105
Customers express their views on services they want	43	0.00	22.4	21.7	56.1	0.00	2.10	100	.109

**Source: Research Data (2014)**

As shown in Table 4.4, 51% of the respondents indicated that they did not rely on bank services always due to delays experienced and system failure in some cases when customers were too many with a mean of 4.22. 46% of them indicated that they were loyal to their banks at a small extent due to poor services accessed with a mean of 4.00. 39% of them indicated that technology influenced service delivery at a moderate extent despite the challenges of the bank to implement and customer resistance to new technology with a mean of 4.00. 39% of them indicated that there were customer complaints due to challenges experienced during service access.

The challenges were due to delays in the system to transact and system failure in some days with a mean of 3.85. 39% of them indicated that they did not get instant feedback concerning the status of their financial statements in time due to system failure with a mean of 3.85. 41% of them indicated that they did not get instant solutions on their problems as complex procedures associated with paper work were slowing down their drive to be services with a mean of 3.78. 41% of them indicated that there were a lot of movement of

workers within the premises due to lack of integrated system with a mean of 3.78. 49% of them indicated that there were imbalances in employee responsibilities with a mean of 2.11. This was due to unclear role specification and measurement of individual workload with a mean of 2.11. 56% of them indicated that customers were given an opportunity to express their views on the services they received at a minimal extent with a mean of 2.10. This was due to lack of proper mechanisms to measure customer satisfaction among commercial banks.

#### 4.5.3 Demand Management Strategy

The respondents of the study were asked to indicate the extent to which they applied demand management strategy. The following were the findings as shown in Table 4.5 below:

**Table 4.5: Demand Management Strategy**

	N	To a Very Large Extent [5]	To a Large Extent [4]	To a moderate Extent [3]	To a small Extent [2]	Not At all [1]	Mean Score	Total	S.E
The bank has alternative means of meeting customer demands	43	4.9	4.9	22.0	24.4	43.9	3.78	100	.162
The bank uses technology to overcome overwhelming demand	43	4.9	4.9	22.0	24.4	43.9	3.78	100	.162
The bank anticipate customer demands in advance	43	24.3	4.9	22.0	43.9	4.9	3.78	100	.162

The bank utilizes resources effectively to meet customer demands	43	0.00	22.3	0.00	22.0	56.1	3.63	100	.109
The bank uses models to analyze forces of demand and supply	43	0.00	22.0	22.1	56.1	0.00	3.63	100	.109
The bank minimizes waste through planning	43	0.00	22.3	22.3	56.3	0.00	3.63	100	.109

**Source: Research Data (2014)**

As shown in Table 4.5, 44% of the respondents indicated that the bank did not have alternative means of meeting customer demands with a mean of 3.78. This was due to poor consumer research and continuous improvement of services. 44% of them indicated that the bank did not use modern technology to overcome overwhelming demand in the market with a mean of 3.78. This was associated with internal and external challenges. Employee resistance to adopt new technology and lack of support from top level management were major challenges. 44% of them indicated that the bank did not anticipate customer demands in advance due to changing external business environment and customer needs and wants with a mean of 3.78. 56% of them indicated that the bank did not utilize resources effectively to meet customer needs and wants due to poor internal control mechanisms used by their banks with a mean of 3.63. 56% of them indicated that the bank analyzed forces of demand and supply and minimized planning on a small extent with a mean of 3.63.

#### **4.5.4 Supplier Relationship Management Strategy**

The respondents of the study were asked to indicate the extent to which they applied supplier relationship management strategy. The following were the findings as shown in Table 4.6 below:

**Table 4.6 Supplier Relationship Management Strategy**

	N	To a Very Large Extent 5]	To a Large Extent [4]	To a moderate Extent [3]	To a small Extent [2]	Not At all [1]	Total (%)	Mean Score	S.E
There is mutual relationships among stakeholders	40	0.00	22.0	17.9	60.3	0.00	100	3.13	.109
Suppliers are selected based on quality	40	0.00	22.0	27.7	40.2	0.00	100	2.80	.109
There is close collaborations with suppliers	40	0.00	22.0	29.9	48.0	0.00	100	2.80	.194
Suppliers are sourced through online	40	0.00	22.0	32.5	0.00	45.3	100	2.80	.194
Suppliers are vetted by quality management boards	40	0.00	48.8	0.00	0.00	62.4	100	2.11	.105
Suppliers are maintained for long term	40	0.00	12.0	0.8	0.00	80.4	100	2.10	.109
Suppliers are always are sources from the global markets	40	0.00	22.0	5.5	0.00	72.3	100	2.10	.109

**Source: Research Data (2014)**

As shown in Table 4.6, 60% of the respondents indicated that mutual relationship among stakeholders was on a small extent with a mean of 3.13. This was due to lack of proper mechanisms of customer relationship management by most of the commercial banks. 40% of the respondents indicated that suppliers were selected based on quality at a small extent close collaborations were minimal with a mean of 2.80. This was due to stiff competition



and globalization challenges. 45% of them indicated that suppliers were not sourced through online due to challenges of technology in the system and employee resistance with a mean of 2.80. 62% of them indicated that suppliers were not vetted by quality management boards due to inadequate time and lack of policies of vetting with a mean of 2.11. 80% of them indicated that suppliers were maintained for long term period on a minimal extent due to competition challenges with a mean of 2.10. Finally suppliers were not sources from the global market due cost implication with a mean of 2.10.

#### 4.5.5 Benefits of Lean Supply Chain Management Strategies

The respondents of the study were asked to indicate the Benefits of Lean Supply Chain Management Strategies. The following were the findings as shown in Table 4.7 below:

**Table 4.7: Benefits of Lean Supply Chain Management Strategies**

<b>Benefits</b>	<b>N</b>	<b>To a Very Large Extent</b> [5]	<b>To a Large Extent</b> [4]	<b>To a moderate Extent</b> [3]	<b>To a small Extent</b> [2]	<b>Not At all</b> [1]	<b>Mean Score</b>	<b>S.E</b>
Improved supplier and logistics performance	43	<b>43.7</b>	0.00	22.0	24.4	4.7	3.76	.162
The ability to deliver every time at the same cost to the business	43	<b>43.5</b>	0.00	22.0	24.4	4.6	3.74	.162
Predictable throughput times from better labor utilization	43	<b>43.8</b>	0.00	22.0	24.4	4.7	3.68	.162
Improved working capital positions from reduced inventory	43	<b>43.9</b>	0.00	22.0	24.4	4.9	3.64	.162
Lower warranty and customer service costs	43	<b>43.9</b>	0.00	22.0	24.4	4.9	3.64	.162

from improved quality								
Reduced transaction and production costs	43	<b>56.4</b>	22.0	0.00	22.0	0.00	3.11	.109
Improved resource planning decisions investment decisions	43	<b>55.8</b>	22.0	0.00	22.0	0.00	3.11	.109
Greater production predictability and efficiency	43	<b>56.1</b>	22.4	0.00	22.2	0.00	3.09	.109
Improved deployment of complementary capabilities	43	<b>56.1</b>	22.2	0.00	22.4	0.00	3.06	.109
Greater knowledge integration and Research Development effectiveness	43	<b>61.1</b>	22.4	4.7	12.0	0.00	2.48	.194
Incentives for increased innovation	43	<b>61.3</b>	22.3	4.6	12.4	0.00	2.48	.194
Increased mutual commitment to improving joint long-term competitive performance	43	<b>61.4</b>	12.1	4.5	22.1	0.00	2.47	.194
Improved visibility and transparency in production	43	<b>48.6</b>	17.3	34.3	0.00	0.00	2.11	.105
Ability to manage uncertainty and risk	43	<b>48.7</b>	34.2	17.1	0.00	0.00	2.11	.105
Ability to align core competencies and complementary capabilities	43	33.6	0.00	17.1	0.00	48.5	2.11	.105
Increased operational readiness	43	<b>43.9</b>	0.00	22.0	24.4	4.9	3.64	110
Increased product quality	43	<b>43.9</b>	0.00	22.0	24.4	4.9	3.64	100
Increased workers' efficiency	43	<b>56.4</b>	22.0	0.00	22.0	0.00	3.11	105
Increased utilization of	43	<b>55.8</b>	22.0	0.00	22.0	0.00	3.11	106

machines and space								
Reduced of machine failures	43	<b>56.1</b>	22.4	0.00	22.2	0.00	3.09	.109
Compressed cycle times	43	<b>56.4</b>	22.0	0.00	22.0	0.00	3.11	.109
Reduced logistics costs	43	<b>55.8</b>	22.0	0.00	22.0	0.00	3.11	.109
Increased inventory levels	43	<b>56.1</b>	22.4	0.00	22.2	0.00	3.09	.109
Increased supply chain visibility	43	<b>56.1</b>	22.2	0.00	22.4	0.00	3.06	.109
Improved supplier and logistics performance	43	<b>61.1</b>	22.4	4.7	12.0	0.00	2.48	.194

**Source: Research Data (2014)**

As shown in Table 4.7, majority of the respondents indicated that the lean supply chain management strategies added value addition to their system. Some of these values were; Improved supplier and logistics performance, The ability to deliver every time at the same cost to the business, Predictable throughput times from better labor utilization, Improved working capital positions from reduced inventory, Lower warranty and customer service costs from improved quality, Reduced transaction and production costs , Improved resource planning decisions investment decisions , Greater production predictability and efficiency , Improved deployment of complementary capabilities , Greater knowledge integration and Research Development effectiveness, Incentives for increased innovation, Increased mutual commitment to improving joint long-term competitive performance, Improved visibility and transparency in production, Ability to manage uncertainty and risk, Ability to align core competencies and complementary capabilities, Increased operational readiness, Increased product quality, Increased workers' efficiency Increased utilization of machines and space, Reduced of machine failures, Compressed cycle times, Reduced logistics costs, Increased inventory levels, Increased supply chain visibility and Improved supplier and logistics performance.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

This study was carried out to establish the impact of lean supply chain management strategies on the performance of commercial banks in Kenya. This chapter presents the summary of findings for the objectives of this study, gives conclusions, recommendations based on the findings of the study and the suggestions on areas that need to be researched as far as this concept is concerned.

### **5.2 Summary of Findings**

The study established that customer relationship management strategy was not a common practice among commercial banks in Kenya as a lean strategy. This was characterized by; lack of continuous research on products and services lack of long term relations with customers, high human interaction during customer service delivery due to inadequate technology in the value chain activities, increased waiting, delays during service access and lack of appropriate mechanisms to measure customer satisfaction. Lean companies work cooperatively with their customers (Ketchen & Hult, 2006).

The study established customer service management strategy was applied at a minimal extent as a lean practice among commercial banks in Kenya. This was characterized by delays experienced and system failure in some cases when customers were too many, lack of appropriate technology to improve customer experience, customer complaints due to challenges experienced during service access, lack instant feedback concerning the status

of their financial statements in time due to system failure, lack of integrated system, customers were given an opportunity to express their views on the services they received. Value is often added more by the additional services and close cooperation than by the attributes of the products themselves (Ketchen & Hult, 2006)

The study found out that demand management strategy was not applied as a lean management strategy at a great extent by most of the commercial banks. This was due to; bank did not have alternative means of meeting customer demands, banks did not use modern technology to overcome overwhelming demand, changing external business environment and customer needs and wants poor utilization of resources effectively to meet customer needs and wants. Service quality is perceived by customers is the extent of discrepancy between customers' expectations and their perceptions of actual service performance ( Simchi-Lev & Kaminsky, 2007).

The study found out that supplier relationship management strategy was not a common lean strategy among commercial banks in Kenya. This was due to; poor mutual relationship among stakeholders, lack of proper mechanisms of customer relationship management, failure to select suppliers based on quality due to stiff competition and globalization challenges, technology was not embraced during sourcing of suppliers, suppliers were not vetted by quality management boards due to inadequate time and lack of policies of vetting and finally suppliers were not sources from the global market due cost implication. The study also established that there was a positive relationship between independent variables and performance of commercial banks in Kenya. Lean can be seen as a concept addressing

the quality, cost and delivery of a company's business processes by using an integrated set of principles, methods and tools (Schonberger & Richard, 2007).

### **5.3 Conclusions**

The study concludes that most commercial banks in Kenya have been embracing lean supply chain management strategies despite the challenges experienced from the internal and external environment. Lean supply chain management strategies have assisted the commercial banks to enhance the performance from the financial and non-financial perspective. This is supported by the results from a regression analysis conducted that indicated that there is a strong relationship between lean supply chain strategies and performance of commercial banks in Kenya. To gain competitive edge in the financial industry, commercial banks have no choice other than implementation of the lean strategies for survival.

### **5.4 Recommendations**

The study established that customer relationship management strategy was not a common practice among commercial banks in Kenya as a lean strategy. Therefore, this study recommends that top level management to make customer relations a culture of the organization by training new and existing employees.

The study established customer service management strategy was applied at a minimal extent as a lean practice among commercial banks in Kenya. Therefore, this study recommends that management to integrate ICT in customer service delivery.

The study found out that demand management strategy was not applied as a lean management strategy at a great extent by most of the commercial banks. Therefore, this study recommends that management should invest in modern models of analyzing demand and supply trends in order to overcome the challenge of overwhelming demand.

The study found out that supplier relationship management strategy was not a common lean strategy among commercial banks in Kenya. Therefore, this study recommends that commercial banks should strive and maintain long term relationships for quality of products and services.

### **5.5 Limitations of the Study**

It was such an uphill task for the researcher to convince the respondents to participate in the study. Commercial banks are known to work under very strict confidentiality in order to secure any unauthorized access to information. Most of the respondents agreed to participate on condition that the information will not be divulged to any other party other than for academic purposes only.

The findings of this study and application thereof are limited to commercial banks in Kenya. They may not be applicable directly to other organizations operating outside the Kenyan banking industry. It is therefore important to note that they can only be used for comparative purposes and not any direct application in another country.

### **5.6 Suggestions for Further Research**

Future studies should explore the reasons behind the Challenges of lean supply chain management strategies applied by commercial banks in Kenya. Factors Affecting the

Implementation of lean supply chain management Strategies among commercial banks should be investigated. Researchers should go ahead and establish the reasons behind the failure of lean supply chain management strategy implementation hence establish long term solutions. Future studies will minimize the challenges experienced during lean supply chain management strategy implementation. Future studies should try to investigate the relationship between lean strategies and performance of commercial banks in Kenya.



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## APPENDICES

### Appendix I: Introductory Letter

**Mukunju Esther Wanjiru**  
**C/o university of Nairobi,**  
**P.o box 30197-00100,**  
**Nairobi.**  
**Kenya.**

### TO WHOM IT MAY CONCERN

Dear Sir/Madam,

#### **REF: MBA RESEARCH STUDY**

I am a student pursuing for a Masters degree in Business Administration at the University of Nairobi. In partial fulfillment of the requirements to the award of the Masters degree, I am required to carry out a research and write on *“Influence of Lean Supply Chain Management Strategies on Performance of Commercial Banks in Kenya”*

I kindly request your assistance by availing your time to respond to the questionnaire. The information will be treated with utmost good faith and a copy of the final report will be made available to you at your request.

Thank you

Yours faithfully,

**Student**

**Mukunju Esther Wanjiru**

**D61/61881/2010**

Sign.....

## Appendix II: Questionnaire

### SECTION A: Organizational Demographics

Please supply the required data by filling in the blanks where space is provided or by ticking [√] against the most appropriate answer.

I respondents name..... [Optional]

#### 1. For how long has this Commercial Bank been operating in Kenya?

- a) Less than 5 years [    ]
- b) 5 – 10 years [    ]
- c) 11 – 15 years [    ]
- d) 16 – 20 years [    ]
- e) Over 20 years [    ]

#### 2. What is the size of your Commercial Bank in terms of market share?

- a) Large sized company [    ]
- b) Medium sized company [    ]
- c) Small sized company [    ]

### SECTION B: LEAN SUPPLY CHAIN MANAGEMENT STRATEGIES

#### 3. Do you understand lean supply chain management strategies?

Yes [    ] No [    ]

#### 4. To what extent does your Commercial Bank apply the following lean supply chain management strategies?

Lean Practices	Very Great Extent [5]	Great Extent [4]	Moderate Extent [3]	Little Extent [2]	No extent [1]
<b>Customer Relationship Management Strategy</b>					
Customers access services without delay					
Customers are given an opportunity to measure the service they get					
Continuous research is conducted on customer products/service					
Customers are attracted and maintained					
There is close relationship with customers					
There are minimal human interaction during service delivery					

Reduced waiting time is experienced by the customer					
<b>Customer Service Management Strategy</b>					
Minimal employee motion at the workplace					
There is good communication among workers and employees					
Minimal waste of unused human talent					
Customers express their views on services they want					
Customers are assured of the services always					
Customers rely the bank services always					
Customers are royal due to satisfaction					
Technology enhance customers service					
Minimal complaints are experienced					
Timely feedback is given to customers					
Customers get instant solutions without delay					
<b>Demand Management Strategy</b>					
The bank has alternative means of meeting customer demands					
The bank uses technology to overcome overwhelming demand					
The bank anticipate customer demands in advance					
The bank utilizes resources effectively to meet customer demands					
The bank uses models to analyze forces of demand and supply					
The bank minimizes waste through planning					
<b>Supplier Relationship Management Strategy</b>					
There is mutual relationships among stakeholders					
Suppliers are selected based on quality					
There is close collaborations with suppliers					
Suppliers are sourced through online					

Suppliers are vetted by quality management boards					
Suppliers are maintained for long term					
Suppliers are always are sources from the global markets					

**SECTION B: BENEFITS OF LEAN SUPPLY CHAIN MANAGEMENT STRATEGIES**

**5. To what extent does your Commercial Bank benefit from lean supply chain management strategies?**

<b>Benefits</b>	<b>Very Great Extent Points</b>	<b>Great Extent points</b>	<b>Moderate Extent Points</b>	<b>Little Extent Points</b>	<b>No extent points</b>
	<b>[5]</b>	<b>[4]</b>	<b>[3]</b>	<b>[2]</b>	<b>[1]</b>
Increased operational readiness					
Increased product quality					
Increased workers' efficiency					
Increased utilization of machines and space					
Reduced of machine failures					
Compressed cycle times					
Reduced logistics costs					
Increased inventory levels					
Increased supply chain visibility					
Improved supplier and logistics performance					
The ability to deliver every time at the same cost to the business					
Predictable throughput times from better labor utilization					
Improved working capital positions from reduced inventory					
Lower warranty and customer service costs from improved					



quality					
Reduced transaction and production costs					
Improved resource planning decisions investment decisions					
Greater production predictability and efficiency					
Improved deployment of complementary capabilities					
Greater knowledge integration and Research Development effectiveness					
Incentives for increased innovation					
Increased mutual commitment to improving joint long-term competitive performance					
Improved visibility and transparency in production					
Ability to manage uncertainty and risk					
Ability to align core competencies and complementary capabilities					

**THANK YOU FOR YOUR COOPERATION**

### **Appendix III: List of Licensed Commercial Banks in Kenya**

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&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
42. Victoria Commercial Bank
43. Housing Finance

**Source: Central Bank of Kenya Report (2014)**