

**CAPACITY MANAGEMENT AND SERVICE DELIVERY OF COMMERCIAL BANKS
IN KENYA**

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DECLARATION

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

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This project has been submitted for Examination with my approval as the University Lecturer.

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DEDICATION

I dedicate this project to my family for unfailing encouragement and love. To my dear husband and best friend Patrick, and to my loving son Kelvin and daughters Faith, Ann and Tabitha.

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ABBREVIATION AND ACRONYMS

ATM	-	Automated Teller Machines
CBK	-	Central Bank of Kenya
ISO	-	International Standardization Organization
KBA	-	Kenya Bankers Association
PWC	-	PricewaterHouse Coopers
RBT	-	Resource Based Theory
ICT	-	Information and Communication Technology

ABSTRACT

The capacity of a firm to satisfy demand in a timely manner and at a reasonable cost is one of the main objectives in an organization because of its attendant benefit to the organization as well as to the customers being served. A firm capacity management is concerned with matching its capacity of the operating system and the demand placed on that system by the customers and involves decision making on matters relating to planning, analyzing and optimizing capacity to satisfy demand in a timely manner and at a reasonable cost. The firm's ability to meet demand forecast can influence its customer satisfaction which in turn is influenced by service delivery system that is in place. On this basis, the study aimed at establishing the capacity management practices adapted by commercial banks in Kenya and how the same affects service delivery. A descriptive research design whereby all the 42 commercial banks in Kenya formed the sample frame. The primary data was collected using the questionnaire as the primary research instrument. The findings was that the common capacity management practices employed by the banks shifting capacity, offloading capacity, sub-contracting and level capacity management. Of these, the popular capacity management was shifting capacity which involved enhancement of employee capacity through offering staff training to enable them to handle more than one task and therefore being able to be redeployed when the need arise, offering overtime services to the staff such as paying them at a premium in times when they work outside the normal working hours as well as providing transport services for the staff. The study indeed found that the capacity management practices employed by a bank has a positive influence on the service delivery of the banks. The conclusion was that there is an interaction between capacity management practices that a firm adopts, quality of service, and resources productivity or efficiency management which is at the heart of the planning and control process for operations management in services production. The study recommends that the managers of the Kenyan commercial banks should embrace fully capacity management strategies such as introduction of systems in which the customers can be able to serve themselves without the intervention of the bank employees. As a limitation, the survey design adopted might not have allowed for the capture of potentially important control variables that facilitate the interactions and influence of actions and performance by other functions in the organization.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The capacity of a firm to satisfy demand in a timely manner and at a reasonable cost is one of the main objectives in an organization. Capacity Management is concerned with matching the capacity of the operating system and the demand placed on that system and involves decision making on matters relating to planning, analyzing and optimizing capacity to satisfy demand in a timely manner and at a reasonable cost (Van Mieghem, 2005). In service operations, capacity management is concerned with balancing the capacity of the service delivery system and the demand from customers to minimize customer waiting time and to avoid idle capacity. The objectives to achieve are minimal operating costs and service quality. Participation of the customers in the service delivery process and the nature of services limit the standard options that are available for matching supply with demand (Buxey, 2007). Since capacity is part of the product, decisions on how much capacity to make available are made at the same time as the decision on how to utilize the capacity. The effect of this is that capacity decisions significantly influence service delivery as perceived by the customer.

Customer service is one of the important keys for success in today's business world and is considered a broad concept that entails many dimensions of customer satisfaction. Ballou (2008) highlights the importance of fast and reliable deliveries in customer satisfaction. Consequently, speed has emerged as a determinant factor of competitive advantage next to the price and as a

result, it is necessary for companies to set targets for uniform, short and reliable lead times. This move tends to be ambitious performance targets which will also demand more capacity that will eventually result in higher operating costs. Under these circumstances, flexible capacity management can play a soothing role for the operations manager, who is stuck between the conflicting objectives of attaining ambitious lead-time performance targets and reducing the operating costs (Gant's et al, 2003). Therefore firms wishing to deliver solutions effectively need to secure support from all functions, including product development, marketing, sales, operations, and finance. The logic of capacity is quite different from the logic of product business: it requires a more collaborative management, business planning needs to involve customers more, and the measures used to control the business have to acknowledge its cross-functional nature (Spekman and Carraway, 2006).

The need to offer integrated solutions requires organizational and capability changes as firms reposition themselves in the value chain (Spekman and Carraway, 2006). They further suggest that the transition towards collaborative solution requires a better understanding of new capabilities needed “without which any collaboration is apt to run into insurmountable obstacles” (p.12). Brandy et al. (2005) argue that firms that shift towards becoming providers of integrated solutions develop new capabilities, such as systems integration capabilities, operational service capabilities, business consulting capabilities and financing capabilities. In order to configure all these capabilities and be able to deliver the service to a customer satisfactorily will require that companies manage effectively their capacities. The study is based on the Resource-Based View which emphasizes the internal resources of the organization in development of organization operations schedules (Gibson *et al.*, 2010).

1.1.1 Capacity Management Practices

The capacity management is the management of the limits of an organization's resources, such as its labor force, manufacturing and office space, technology and equipment, raw materials, and inventory. Capacity management also deals with the capacity of an organization's processes, for example, new product development or marketing as well as with capacity constraints that arise when various resources are combined. Since capacity constraints in any process or resource can be a major bottleneck for a company, capacity management is of critical importance in ensuring that an organization operates smoothly. The capacity management process relies on the key concept of a capacity management plan. In a bank, capacity management plan is a calendar based data store that keeps track of: workload identities, forecasts, and resource access quality of service requirements; resources that are associated with a pool; and assignments of workloads to human resources (Kolev and Paiva, 2008). Further, in order to increase the level of service offering as well as manufacturing process, banks increase their flexibility (De Toni and Tonchia, 2008) which allows short-term capacity adjustment ensuring that capacity is fully available and is not wasted due to waiting times for staff.

The capacity management process advocates the need of balancing capacity availability with capacity demand and considers the related capacity costs including the costs for short-term (intra-period) capacity adjustments. It is also important to note that for effective capacity management, banks should have their planning period to be short such that it can be adjusted accordingly. In many cases such a contract might cover periods from a quarter up to a year. In high-flexibility environments, due to subcontracted employees, home-based workplaces, and flexible work hours, such contracts might allow capacity changes on a weekly or daily basis

(Lingle and Schiemann, 1996). Indeed, based on the prior research, Joshi et al. (2003) identified a gap in the alignment performance operations practices. The capacity management practices commonly used are three which are level, chase and coping practices (Jones and Kutsch, 2007). Each of these strategies should be adopted when its advantages outweigh the disadvantages. Often service companies have to opt a mixed capacity practices as it is very hard to forecast demand and balance existing capacity (Jones and Kutsch, 2007).

1.1.2 Service Delivery

Service delivery is a component of business that defines the interaction between providers and clients where the provider offers a service, either information or a task, and the client either finds value or loses value as a result. The concept of service delivery has been studied in a variety of disciplines, like services marketing/management, operations management, and purchasing and supply chain management. In the service marketing research follows a service scope on delivery which has brought forward various instruments for evaluating service delivery from a seller's perspective, of which SERVQUAL (Parasuraman, Zeithaml, & Berry, 1985) has emerged as the leading service quality model in a business-to-consumer setting.

In banks, service delivery quality like the ISO 9000 series of standards can be used to manage service delivery quality. Compliance with these standards suggests that organisations have effective and reliable management systems in place to ensure a consistent level of service (Steimle, & Zink, 2009). With the banking industry firms, job standardization leads to the creation of routines that are very simple and clear. Usually, the presence of human interactions makes standardization of services difficult, as human behavior is highly variable. To deal with this variation, Chase (1998) suggested distinguishing between high- and low-contact services, as

low contact services can be more easily standardized. Other operational-level control measures concern providing incentives to suppliers, building peer-groups and increasing the visibility of service employees and their performance (Heskett, 1987).

Provision of quality service should exceed customer's expectation. Customers' compare the perceived service with the expected service and that if the perceived service is below expectation; they lose interest with the provider while the opposite creates loyalty (Parasuraman, Zeithaml, Berry, 1991). As a result, they found five determinants of service quality by order of importance that is; reliability, responsiveness, (willingness to help customers and prompt service assurance), the ability to convey trust, empathy and individualized attention to customers. Studies have found that well managed service companies have the following practices; strategic concept and top management support, high standards of service delivery, service monitoring systems, satisfying customer's complaints and an emphasis on employee satisfaction.

1.1.3 Commercial Banks in Kenya

There are forty two banks as categorized by Central Bank and members of the clearing house. Thirty-five of these banks, most of which are small to medium sized, are locally owned. This leaves the remaining seven banks that are foreign owned. The industry is majorly dominated by a few large banks which are foreign-owned, though some are partially locally owned. There are ten banks listed on the Nairobi Securities Exchange that includes such banks as Barclays, Cooperative bank, Kenya Commercial bank, Equity and National bank of Kenya among others. The banks came together under the Kenya Bankers Association (KBA), which serves as the lobby for banks' interests and addresses the issues affecting member institutions (Kenya Bankers Association Annual Report, 2013).

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. Banking operations ensure that processes and transactions are executed correctly minimizing risk and maximizing quality of service. These jobs are found in the middle and back office teams of all business units. Some of the commercial banking operations include but not limited to Retail banking, Business banking, Private banking, Investment Banking, Trade Finance, Funds transmission among others. To execute these operations, the commercial banks have to move 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 business 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 than before. Nyaoke (2007) indicates that there are some challenges that are encountered by the banking industry in Kenya such as money laundering, liquidity, matching assets to liabilities, competition and low market growth. Challenges such as money laundering are easily overcome once banks embrace integration since various departments are able to share real time information.

1.2 Research Problem

Capacity utilization can influence the firm's ability to meet its demand forecast. The firm's ability to meet demand forecast can influence its customer satisfaction which in turn is influenced by service delivery. Many companies have to face different types of uncertainties, which can be modeled as stochastic influences on their production systems. These uncertainties are often inter-dependent which makes analyses and accurate reactions more complicated (Kalleberg et al. 2003). Actually, in the presence of demand uncertainty, flexible capacity management can be of high value to hedge against the under-utilization of deployed capacity. As a result, flexible capacity management policies such as flexible staffing, under/over working hours, outsourcing are commonly used in the manufacturing as well as service industries.

Commercial banks in Kenya have various capacities to manage such as the number of Automated Teller Machines commonly referred to as ATMs, the size of the banking halls, the systems employed, the banking platform in use such as mobile banking, Electronic banking, the size of the data base, the expertise employed as well as the financial resources as compared to the investments they intent to make. The level of inventory and the number of employees as well as the level of their skills are also important capacities in a firm's competitiveness.

Several studies have been conducted on capacity management practices. Bradley and Glynn (2002) provided a Brownian motion approximation to study the joint optimal control of the inventory and the capacity in a make-to-stock system with a subcontracting option. Similarly, Tan and Alp (2009) researched on the integrated capacity and inventory management problem of a make-to-clock system. Tan and Gershwin (2004) provided a model for the production and subcontracting control problem with limited capacity and volatile demand environment.

Different factors such as the availability guarantee of the subcontractor or the backlog-dependent demand structures were incorporated to their models. Wairimu (2014) researched on the capacity management strategies and service quality in petroleum distribution firms in Kenya. The study found that capacity management in the service context can interact and the interaction positively influences perceived service quality. Mutali (2013) researched on the factors that influence the service quality in Kenyan commercial banks. The study found that both the banks internal factors such as resource constraints affect the service quality. Ongo'ndo (2013) researched on the effect of capacity management strategies on service quality in Safaricom limited retail outlets. The findings showed that implementation of capacity management strategies by Safaricom limited at its various retail outlets throughout Kenya enhanced the provider's quality of service provision. On the basis of the reviewed studies, though the aspect of capacity management has been researched on, the studies has not reviewed the relationship between capacity management and service delivery and more so in the banking industry. Therefore, this gap leads to the following research question, what are the capacity management practices commonly used by commercial banks in Kenya; and is there a relationship between the capacity management practices and service delivery of commercial banks in Kenya?

1.3 Research Objectives

- (i) To determine the capacity management practices commonly used by commercial banks in Kenya.
- (ii) To establish the relationship between capacity management practices and service delivery of commercial banks in Kenya.

1.4 Value of the Study

The findings of this study will give policy makers a glimpse of how capacity management affects the service 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 service delivery 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 capacity management 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 has been organized as theoretical review, empirical review, critical review and a conceptual framework is given at the end of the chapter, which brings out the main variables discussed in the study.

2.2 Theoretical Review

2.2.1 Resource Based Theory

According to resource based theory, firm's resources are not limited to tangible assets only. The enduring inter-firm relationships are also regarded as valuable intangible resources that generate long-term benefits (Gan, Clemes, Kao & Xin, 2007). Members operating on the same supply chain are thus considered as a collection of complimentary resources and capabilities, for e.g. transport firms, accommodation, food and crafts and activities/excursions organizing firms, ground handlers in tourism sector.

Basic premise of RBT is that with uncertainty, firms create negotiated environments and establish inter-organizational arrangements as strategic responses to environmental uncertainty and inter-firm dependence, in an effort to make conditions of trade more predictable. From the RBT, developing inter-firm relationships to accompany mutual exchanges of complimentary

resources is a necessity (Buvik & Grønhaug, 2000). Examples include outsourcing of catering services, cleaning services, bakery etc. by hotels, airlines

Inter-firm relationships derived from repeated exchange processes create norms like trust, mutual business goals, commitment which create safeguards against opportunism. As the relationships evolve, social structures and shared values emerge and serve as behavioral guidelines for future exchanges. The relationship then becomes the reference point for establishing ongoing terms of trade inter-firm interaction and contracting practices (Buvik & Halskau, 2001).

2.2.2 Human Capital Theory

The origin of human capital goes back to emergence of classical economics in (1776) and thereafter developed a scientific theory. The idea of investing in human capital was first developed by Adam Smith (1776), who argued in the Wealth of Nations that differences between the ways of working of individuals with different levels of education and training reflected differences in the returns necessary to defray the costs of acquiring those skills. Economists such as Elliot (1991) developed the theory of human capital. He is concerned with human capital in terms of the quality, not quantity, of the labour supply. (Baron and Armstrong, 2010). After the manifestation of that concept as a theory, Schultz (1961) recognized the human capital as one of the important factors of national economic growth in the modern economy (Dae-bong, 2009).

The theory argues that a person's formal education determines his or her earning power. Human capital theory holds that it is the key competences, skills, knowledge and abilities of the workforce that contributes to organizations competitive advantage. This theory supports the current position in the banking industry where employees that are multi-skilled are paid higher

salary than those that have only a single training background. In addition, the banks pay those staff with specialized training a higher rate than staff that has a more common training. In addition, banks have continued to budget more resources to staff development with an aim of improving their capacity. It focuses attention on resourcing, human resource development, and reward strategies and practices. According to Human Capital Theory, education is an investment because it is believed that it could potentially bestow private and social benefits. Human capital theorists believe that education and earning power are correlated, which means, theoretically, that the more education one has, the more one can earn, and that the skills, knowledge and abilities that education provides can be transferred into the work in terms of productivity (Dae-bong, 2009).

2.3 Service Delivery

Quality service delivery involves a comparison of expectations with performance. According to Lewis and Booms (1983) service quality is a measure of how well a delivered service matches the customer's expectations. The main reason to focus on quality is to meet customer needs while remaining economically competitive at the same time. This means satisfying customer needs is very important for the enterprises survival and it requires understanding and improving of operational processes, identifying problems quickly and systematically, establishing valid and reliable service performance measures and measuring customer satisfaction and other performance outcomes. According to Kundenbindun (2008) service quality is a business administration's term and describes the degree of achievement of an ordered service. International Organization for Standardization (2011) defines quality as the totality of features and characteristics of a product or service that bears its ability to satisfy stated or implied needs .

Parasuraman, Zeithaml and Berry (1985) identified ten determinants of service quality that may relate to any service as competence , courtesy, credibility, security, access, communication, understanding/ knowing the customer, tangibles, reliability and responsiveness.

Competence is the possession of the required skills and knowledge to perform the service: knowledge and skill of the contact personnel, knowledge and skill of the operational support personnel, research capability of the organization. Courtesy is politeness, respect, consideration and friendliness of the contact personnel: consideration. For the customer's property, clean and neat appearance of public contact personnel. Credibility is the trustworthiness, believability and honesty. It involves having the customer's best interest at heart: company name, company reputation, personal characteristics of the contact personnel. Security refers to freedom from danger, risk or doubt: physical safety, financial security, confidentiality. Access is approachability and ease of contact: Service is easily accessible; waiting time to receive service is not extensive, convenient hours of operation, convenient location of service facility.

Communication entails informing the customers in a language they can understand and listening to them. It may mean that the company has to adjust its language for different consumers: explaining the service itself, explaining how much the service will cost, and explaining the tradeoffs between service and cost, assuring the consumer that the problem will be handled. Understanding/ knowing the customer is making the effort to understand the customer's needs: understanding customer's specific needs, providing individualized attention, recognizing the customer. Tangibles are physical evidence of the service: appearance of physical facilities, tools and equipments used to provide the service, appearance of personnel and communication materials, other customers in the service facility. Reliability is the ability to perform the

promised service dependably and accurately: service is performed right at the first time; the company keeps its promises in accuracy in billing, in keeping records correctly and in performing the services at the designated time. Responsiveness is the willingness and/ or readiness of employees to help customers and to provide prompt service, timeliness of service: mailing a transaction slips immediately, setting up appointments quickly.

Later Parasuraman, Zeithaml and Berry (1988) reduced these determinants of service quality to tangibles, reliability, responsiveness, assurance and empathy. Tangibles are physical evidence of the service: appearance of physical facilities, tools and equipments used to provide the service, appearance of personnel and communication materials. Reliability is the ability to perform the promised service dependably and accurately: consistency of performance and dependability, service is performed right at the first time, the company keeps its promises in accuracy in billing and keeping records correctly, performing the services at the designated time. Responsiveness is the willingness and/ or readiness of employees to help customers and to provide prompt service, timeliness of service: mailing a transaction slips immediately, setting up appointments quickly. Assurance is the knowledge and courtesy of employees and their ability to convey trust and confidence: competence trustworthiness, security. Empathy is the provision of caring, individualized attention to customers: informing the customers in a language they can understand, understanding customer's specific needs, providing individualized attention.

2.4 Capacity Management Practices

Organizations have a fixed set of resources dedicated to producing a defined set of outputs (either products or services). Capacity may be defined as the ability of an organization to

perform work or produce output, and may be expressed in units of time or output. Capacity management is the ability to balance demand from the customers and the ability of service delivery system to satisfy the demand. Therefore, Capacity management is concerned with balancing the ability to produce added value work and the demand for that work. This therefore places emphasis in the understanding first the nature of the demand by forecasting and the options for managing capacity to meet the expected demand (Sasser, 2006). In the management of capacity, when the available capacity is limited the focus should be on influencing the demand to be in line with capacity and in situations where there supply or the capacity is a surplus, there is need to change the demand to be in line with the supply. Consequently, the operations manager should understand the composition of their capacity, the degree to which they can be changed and the speed of their reaction, and the costs involved (Slack, 2007).

Heskett et al., (2003) however observe that, it may not be possible to match the capacity with the demand finely and under such a circumstance, a coping mechanism may be employed which may alter the nature of the service delivered from the original design and hence the customers perception of the service quality. It therefore means that operations managers should be fully aware of the implications of possible changes in their operations plans.

2.4.1 Shifting Capacity

The Shifting capacity management strategy is concerned with controlling the level of capacity by changing the extent of resources by: altering the number of service providers and/or the hours worked, often involving the use of part time staff, sharing capacity between different parts of the service delivery system and transferring resources typically between back room and front office

Hence the aim of shifting capacity management strategy is to maintain capacity closely in line with effective capacity thereby ensuring maximum efficiency and attainment of service quality levels (Alp and Tan, 2006).

In addition, the shifting capacity management may involve The service organization may schedule for downtime during periods of low demand, use temporary staff instead of permanent staff, or lease or share facilities or equipment that are not being used. Alternatively, employees could be multi-skilled to perform a wider variety of tasks (Lovelock, 2002). It is also applicable where capacity is limited and hence the focus is on influencing demand to be in line with capacity by taking measures to influence demand of the customers. Consequently operations managers must understand the composition of their capacity, the degree to which it can be changed, and the speed of reaction (Slack, 1989), and the costs involved (Heskett, 2000). In this capacity management practice, the number of employees would need to be rescheduled to increase the current service levels and also the development of a new facility will also shift the increase in demand which is expected due to new businesses downturn.

2.4.2 Offloading Capacity

The offloading capacity strategy recognizes real constraints in altering effective capacity and seeks to influence the level of demand by way of for example, price changes, advertising and promotion, developing off peak demand, use of appointment and reservation systems and making customers queue for the service (Heskett, 2000). Consequently, the offloading capacity strategy is increasingly linked to yield management systems where effective capacity is constrained, for example in airlines, hotels, and car rental. In yield management the aim is not necessarily to gain the highest utilisation from the limited resource but rather to maximise the

revenue yield from pricing differentials. This brings with it an additional control mechanism of “overbooking” which may result in customers not being served at the time they expect (Ong’ondo, 2013).

The coping action map is an attempt to present a way of developing coping strategies which recognize changing operational focus, capacity strategies and customer service dimensions within a total service delivery (Alp and Tan, 2006). The four general options for operational control are altering the capacity, holding inventory in anticipation of demand, requiring customers to wait for the service, or influencing demand in other ways. In service delivery there is not the possibility of producing the complete service package in advance of demand and holding it as an inventory. This real time element of service production makes the matching of supply and demand very important, particularly in capacity-constrained services, such as airlines, retail outlets, hotels, and professional services, where the profitability of the operation is closely linked to the use of the current capacity (Cagliano et al., 2001).

2.4.3 Sub-Contracting Capacity

Sub-contracting is a contractual relationship between an external vendor and an enterprise in which the vendor assumes responsibility for one or more business functions of the enterprise’ (White and James 2006:31). It majorly deals with outsourcing of important but non-core business activities to “experts in the area”, Johnson (2007) and this is expected to improve the level of delivery of goods and services to customers and hence increase their competitive advantage.

Savage (2006) support the concept of service improvement through outsourcing in a study of a hospital involved in an outsourcing arrangement finds resulting improvements in operations

above comparative in-house arrangements. He further finds that sub-contracting in the health industry reduces costs through the sharing of expensive equipment.

Despite these positive findings associated with outsourcing, other authors list some associated negatives. One negative relates to increased dependency, in that an organization may become too dependent on a single vendor supplier leading to a potential loss of core competencies in-house (Pralhalad and Hamel, 2004). This means that future flexibility is in doubt, as the organization loses its ability to respond to change. A second negative is that outsourcing may result in a loss of control over the service process, as scheduling and time management issues may no longer be able to be solved by one organization (Rothery and Robertson, 1995). Chase and Aquilano (1992) suggest that improvement of the process, in contrast to Savage's (1996).

2.4.4 Level Capacity

In this practice, the capacity is maintained at a constant level all along the planning period and any fluctuations in demand are ignored. High underutilization of resources can make this capacity options very expensive but also very useful where the opportunity cost of single lost sale is very expensive (Geng and Jaing, 2009). In service organizations there is always a possibility of a large number of members coming in any time and very low number of members in off-peak season resulting in either a waiting line or underutilization and therefore a pure level capacity management strategy would be unsuitable.

2.5 The Effect of Capacity Management practices on Service Delivery

Operations managers use capacity management to minimize the trade-off between resource productivity and quality. Service quality and resource productivity are important in the strategy

context as they impinge on the ability of the service organisation to attain its competitive strategy described by a combination of perceived added value and price (Bowman 2000). Service quality and customer satisfaction is aligned to perceived added value for the customer and resource productivity and unit costs affect prices and profitability.

Service researchers have suggested that consumers judge quality of services based on their perception of technical outcome provided, the process by which that outcome was delivered and the quality of the physical surroundings where the service is delivered. In some cases all aspects of services are likely to be important to the overall assessment of quality (Bitner and Zeithmal, 2003). The output achieved by any service delivery process depends on three main factors, service load, being variety of services delivered, capacity tasks which is techniques of forecasting, prioritizing, scheduling, managing bottlenecks and altering capacity, extent of capacity leakage which means quality failures, scheduling losses and loss at change overs associated with achieving flexibility (Armistead & Clark, 1993). For instance, in case of car wash service in a petrol station, the customer will judge the quality of the technical outcome on how the carwash was accomplished and also the quality of the interaction with the service provider. Poor service providers are likely to be often out of control of their capacity and either fail to satisfy demand or maintain excessive inefficiencies. Good service providers will struggle to deal with the two extremes of when a chase strategy runs out of capacity and becomes idle and when demand drops away from effective capacity so that resource productivity drops.

As service operations managers effectively manage their capacity and balance it with demand, there is need of control over the drop in service quality which almost inevitable at these times or an accurate costing of steps to create new capacity and of the decision making process. It is clear

that in addition to the two strategies proposed by Sasser (2006) we need an additional coping strategy which applies to the short term inability to match effective capacity and demand. In maintaining good service quality, managers should, among others, improving their forecasting capabilities, setting clear service quality targets, set clear resource productivity targets and understand critical and hygiene dimensions of their service quality (Armistead and Clark 2001).

Service organisations will sometimes run out of capacity to satisfy demand within the timeframe expected by customers. There are two possible causes of action. One is to allow service quality standards to fall in uncontrolled way or to try control the falling service standards thereby protecting the service standards for the core services. Both instances compromises low efficiency, that means lower quality (Armistead & Clark, 1993). Bowman (1991) argues that service quality cannot be measured and tested in a straight forward manner as in manufacturing firms.

The objective of this practice is to shift the burden of peak period to off-peak period. Either the demand is changed through various methods or alternate products or services are offered to fill off-peak capacity. The most widely applied method in service industry is pricing to shift the peak demand to off-peak when people are not very interested in buying. Advertising also helps to smooth demand but is expensive and if un-planned can result in financial loss. Organizations with different demand patterns develop new products and services covering the whole year (Van Mieghem, 2003). It is proposed that service organizations should either slightly rise prices during the peak times or provide services which cost lesser to manage demand.

2.6 Empirical Review

Ong'ondo (2013) conducted a study on effect of capacity management strategies on service quality in Safaricom. The study intended to determine the extent of adoption of capacity management strategies, factors influencing implementation of capacity management strategies and to establish the effect of capacity management strategies on service quality in Safaricom retail outlets. The findings showed that implementation of capacity management strategies by Safaricom limited at its various retail outlets throughout Kenya enhanced the provider's quality of service provision. He recommended that management of Safaricom limited should consider putting in place steps to even better its quality of service provision. Though the findings showed that various capacity management strategies were in use at its facilities, it was evident that some elements of capacity management strategies investigated were still in their initial stages of implementation and therefore needs to be strengthened to help fortify their effects on enhancing the quality of service provision.

Klassen and Rohleder (2002) set out to determine how demand and capacity decisions work together. They use a simulation based on theoretical and empirical insights to explore the impact of various capacity decisions on profitability and operations. The issues studied include, how demand options such as reservations, price differentials and advertising affect one another, how capacity options such as scheduling, hiring or laying off employees and renting or sharing capacity affect one another, whether some options are more effective than others, and to what degree various options should be implemented in various scenarios. They conclude that demand and capacity decisions do indeed impact on each other. Both Chase and Level capacity strategies were evaluated in the study. Limitations noted were; first the study was a simulation under a

controlled environment, how this would work in practice in an open environment has to be determined, second; the study sample is not stated nor are the firms sampled specified thus one cannot determine whether it was adequate to arrive at the conclusions made, and third the study was carried out in Canada and its application to other geographical and sectoral contexts can only be determined.

Adenso-Diaz *et al* (2002) sought to model capacity requirements based on the nature of services and service demand. The model was tested in an internal medicine unit in a hospital nursing department and in a hotel both based in Spain. Delphi methodology was applied to determine the standard execution times of the different general nursing tasks and the frequency of each task in relation to the type of dependency of the patient. In both studies, total quality functions were developed to establish minimum staff needed to carry out the tasks. In conclusion they argue that their model can be applied in diverse service sectors where there is a flexible workforce with limited staff and variable activities are carried out depending on the type of customer therefore requiring adequate allocation of capacity that maximizes perceived quality. The main problem identified in this study is that their model is limited to only one capacity type, staff; while capacity is made up of several others elements such as physical facilities, equipment and space. Chase capacity practice was used in the two case studies as they concentrated on the ability to assign staff on the basis of the demand that may arise. Whether the model can be applied in all service sectors, in different geographical contexts require testing.

In their study, Armistead and Clark (1994) proposed a coping practice to augment the chase and level strategies. They documented a coping action map to present a way of developing strategies which recognize operations focus, capacity strategies and customer services within a total service

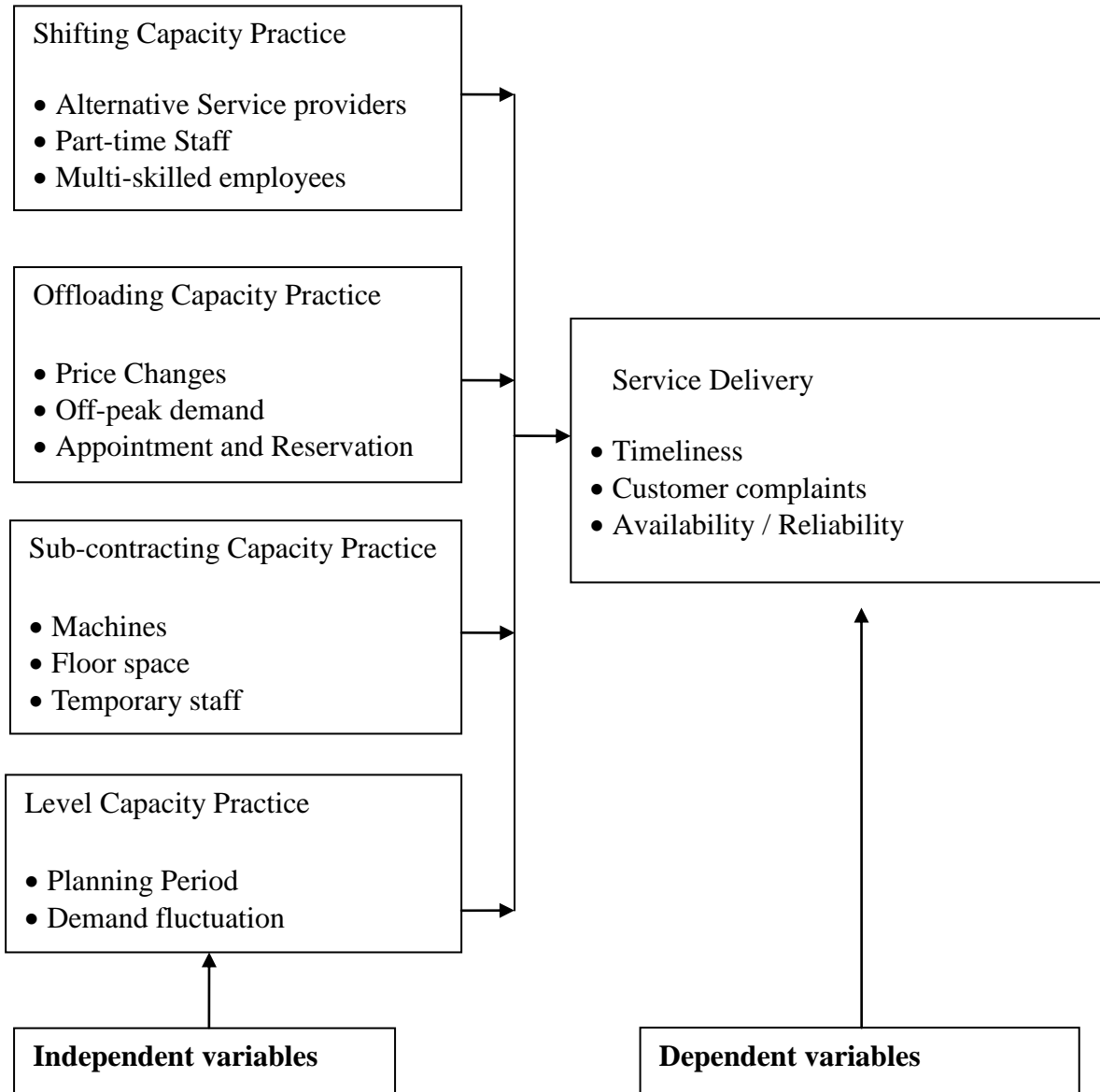
delivery process. They found that the issues which confront the service managers for each activity are to some extent determined by the bias of the basic capacity practice, service managers need to know the effect on perceived service quality and costs in the coping zone when capacity runs out. The case study in this research paper was a hypothetical security company in the United Kingdom thus the issues in consideration are generalization to different industries in an actual operating environment and if this can be applied in the Kenyan context.

2.6 Research Gap

Companies that have a long term talent acquisition and retention practices tend to have a competitive edge in the future. The talent markets and workforce demographics continue to influence how employers attract and retain employees against the backdrop of rising cost challenges. However, in spite of the concept of the capacity management practices and service delivery being around for decades many organizations are yet to appreciate the importance of having a strong capacity management practices and service delivery as a practices for increasing the attractiveness of the organization in the labor market making it possible for the organization to source from a deeper segment of the labor market. Although many studies (Eshiteti,2013; Maluti, 2012; Mokaya, 2008; Waititu, 2010; Bula, 2012) have been conducted in the areas of employee attraction, retention, commitment and how to motivate staff, there seems to be no research study carried out to examine the relationships between capacity management practices and service delivery in Kenya. The study therefore seeks to fill the existing research gap by establishing the effects of capacity management practices and service delivery in the context of the commercial banks in Kenya.

2.7 Conceptual Framework

The conceptual framework for the study is as presented in the figure below.



(Source: Study, 2015)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

The research design adopted was descriptive research design. According to Cooper and Schindler (2000), a descriptive research design is concerned with finding out the; who, what, where, when and how much. The design was deemed appropriate because the main interest was to explore the viable relationship between capacity management practices and service delivery of commercial banks in Kenya.

A cross sectional survey looks at data collected across a whole population to provide a snapshot of that population at a single point in time. Descriptive design method provide quantitative data from cross section of the chosen population. This design provided further insight into research problem by describing the variables of interest.

3.2 Population of the Study

According to Central Bank of Kenya (2015), there are 42 commercial banks operating in Kenya and hence the population of the study consisted of the 42 commercial banks.

3.3 Sampling Design

The study used a census survey of the 42 commercial banks which the researcher distributed questionnaires to every commercial bank from the list in Appendix III. According to Kotter

(2004) a sample of 20% of the target population was considered adequate and since with the sampling procedure to be adopted over 50% of the population data was collected then it was considered to be adequate.

3.4 Data Collection Methods

The study used primary data. The choice of primary data was because there are no available data in this study area. Its appropriateness was also based on picking of peoples' attitudes as well as having subjective answers.

The questionnaire was both open and closed ended questions designed to elicit specific responses for qualitative and quantitative analysis. It adopted a Likert scale format whereby 5 represented a strong positive response and 1 the weak response. The questionnaire contained three sections or questions. Section one covered the demographic information of the respondents while section two established the capacity management practices employed by the commercial banks. The last section linked capacity management practices on service delivery of commercial banks in Kenya.

The questionnaire was administered through "drop and pick later" method to the banks' managers. There was a follow-up to ensure that questionnaires were collected on time and assistance to the respondents having difficulty in completing the questionnaires was offered. Follow-up calls was made to ensure that the questionnaires are dully filled within a reasonable period of time.

3.5 Data Analysis

The data collected was analyzed using descriptive statistics including tables, pie- charts, percentages, mean and standard deviation. The analysis sought to meet the research objectives.

Section one of the questionnaire sought to meet the demographic information of the respondents.

The results were represented with pie chart and summary tables. The second section of the questionnaire sought to establish the capacity management practices used in the firms and a mean of 3 or above on the practices was used to indicate the extent to which the practice influences the service delivery of the company. A standard deviation of 1 or above indicated that there is a high variation among the respondents on the extent to which the variable influence the performance of the company. The service delivery was evaluated by the 3 question is questionnaire.

The overall mean obtained from data of the second question of the questionnaire sought to answer objective two of the research. In addition, a Pearson correlation was undertaken to establish the relationship existing between different independent variables.

The regression equation assumed the following form

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \alpha$$

Where	Y	=	Service Delivery
	β_i	=	(i = 0 – 6) = Regression coefficient
	x_1	=	Shifting capacity management practice
	x_2	=	Offloading capacity management practice
	x_3	=	Sub-contracting capacity management practice
	x_4	=	Level capacity management practice
	α	=	Unexplained variables not explained by the model

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The research objective was to establish effect of capacity management on service delivery of commercial banks in Kenya. This chapter presents the analysis, findings and discussion. The findings are presented in percentages and frequency distributions, mean and standard deviations. A total of 42 questionnaires were issued out. The completed questionnaires were edited for completeness and consistency. Of the 42 questionnaires distributed, 30 were returned. The returned questionnaires' represented a response rate of 77% and this response rate was deemed to be adequate in the realization of the research objectives.

4.2 Demographic Characteristics

The demographic information considered in the study was respondents' length of service with the bank, duration of bank operation and number of employees.

4.2.1 Length of service with the Bank

The length of service that the respondent had served in the bank will give credence to the response provided because it is assumed that, *ceteris paribus*, the longer an employee takes in an organization the better the understanding of the operations and in this case the service delivery mechanism of the entity. The result is provided in Table 4.1.

Table 4.1: Length of service with the Bank

	Frequency	Percent	Cumulative Percent
Less than two years	3	10.0	10.0
2-5 years	6	20.0	30.0
6 - 10 years	9	30.0	60.0
Over 10 years	12	40.0	100.0
Total	30	100.0	

The results show that 40% of the respondents had worked in their current bank for over 10 years, and only three of them were relatively new in their working place having worked for less than 2 years. Generally over 70% of the respondents had been working in their current banks for over 5 years and therefore deemed to be versed with the banks capacity issues and how the same affects service delivery.

4.2.2 Duration of the banks' Operation

The duration in which a commercial banks will have operated will give an indication of the spread of its operations and with this expansion in terms of outlets and also volume of business, it is expected that capacity management issues will arise and their development of an effective system will be necessary. The results on the length of time that the banks had operated in Kenya is presented in Table 4.2.

Table 4.2: Duration of commercial Banks Operation

	Frequency	Percent	Cumulative Percent
Under 5 years	-	-	-
6-10 years	1	3.3	3.3
11-15 years	1	3.3	6.7
Over 16 years	28	93.3	100.0
Total	30	100.0	

The study findings show that majority of the banks (93.3%) had operated for over 16 years and only one of the banks was shown to have been in operation for less than 10 years. With the findings and considering that the Kenyan commercial landscape being competitive, there is a reason to belief that for the duration period, the banks will have come up with effective capacity management systems that is expected to maintain a high service delivery process.

4.2.3 Number of Employees

The size of a bank can be assesses through the number of employees that it has as well as the branch network it has established. In terms of the number of employees that the responding banks had, the results are presented in Table 4.3.

Table 4.3: Numbers of Employees

	Frequency	Percent	Cumulative Percent
101-400	1	3.3	3.3
401-700	2	6.7	10.0
Over 700	27	90.0	100.0
Total	30	100.0	

The results from Table 4.3 shows that majority (90%) of the banks have over 700 employees, and only less three of the surveyed banks had less than 700 staff each. With the majority of the banks having more than 700 employees, then they qualify to be mid-size and larger firms in Kenya according to the categorization of the Kenya Association of Manufactures (KAM). In addition, the large number of staff, it is evident that the majority of the banks will have spread their operations in the country and beyond and this, if not managed well, will bring capacity management well and therefore comprise the service delivery standard.

4.3 Capacity Management Practices

The study, to begin with, sought to establish the extent of adoption of capacity management practices at sampled Commercial banks in Nairobi. An inquiry on the branch managers awareness of the concept of capacity management was made and 28 (93.3%) of the respondents acknowledged being aware of its use within their area of operation. The respondents were, thus, requested to state the extent of use of certain indicators of elements of various capacity management practices within their stations.

Such strategies whose uses were tested included shifting capacity management, Offloading capacity practice, sub-contracting practice and the level capacity practice. A 5-point Likert scale was used to rate the various indicators whereby 1 point was accorded to ‘Very small extent’, 2 points to ‘small extent’, 3 points to ‘moderate extent’, 4 points to ‘great extent’ and 5 points to ‘very great extent’. A standard deviation of > 1.0 implies a significant difference on the impact of the variable among respondents.

4.3.1 Shifting capacity management Practice

The study started with establishing the extent to which shifting capacity management was being applied in the banks. This practice is concerned with controlling the level of capacity by changing the extent of resources by, for example, altering the number of service providers and/or the hours worked or often involving the use of part time staff. The results were as is recorded in Table 4.4.

Table 4.4: Shifting Capacity

Statement	Mean	Std. Deviation
The bank trains and develops the employee capacity to handle more than one task at a time	4.633	1.252
The bank employees multi-skilled staff to perform a wider variety of tasks and therefore is able to meet the demands of various staff at the same time	4.367	.98027
The bank offers overtime facilities to its staff in cases where the prevailing workload is high in particular days	4.300	1.428
The bank alters the number hours worked by its staff to cope with the demands of its customers	4.233	1.330

There is continued transfer resources between back room and front office functions in the bank	4.133	1.235
The bank shares facilities that are idle with the other branches that are having a shortage	4.167	1.381
The bank alters the number of service providers to meet the customer demands	4.133	1.206
The bank employs part time staff on part time basis during periods of increased demands	3.633	1.401
The bank sub-contracts some of its tasks to outside providers during periods of high demand	3.600	1.404
The bank adopts “do it yourself procedure” to customers	3.067	1.337
The different parts of the service delivery system are always sharing the excess capacities in the banking hall	2.867	1.252
Overall Mean	3.92	

Table 4.4 indicates that common shifting management practice among the banks is to train the staff to be able to handle more than one task (M=4.633) being performed at the front and back offices. The other strategy being employed by the banks through changing the level of resources available is to employment of multi-skilled staff to perform a wider variety of tasks and therefore be able to meet the demands of various staff at the same time (M=4.367), offering overtime facilities such as dropping staff home and payment of the hours worked at a premium in cases where the prevailing workload is high in particular days (M=4.300). On the other side of the spectrum, the least popular shifting capacity practice among the banks having the different parts of the service delivery system being able to always share the excess capacities in the banking hall (M=2.867) and also adopting the “do it yourself procedure” among the customers (M=3.067). In the cases where the standard deviation of a particular practice was greater than 1.0, it implies that

there was a deviation in the answers provided by the respondents and this could be due to the level of automation of the banks processes or the different levels of investment in the customer channel processes among the banks.

The study findings show that most of the banks have adopted the employee as the leading factor in managing their capacities and not adopted the technology based capacity management. This is because most of the banks might be having excess banking halls and contrary the findings of Slack (2003), the capacity challenge is majorly found at the counter level which sometimes not able to cope with the customer demand. As Heskett (2000) found out, the operations managers must understand the composition of their capacity, the degree to which it can be changed, and the speed of reaction and this should not be limited to employees only. Cagliano et al (2001) poise that in service delivery there is not the possibility of producing the complete service package in advance of demand and holding it as an inventory. This real time element of service production makes the matching of supply and demand very important, particularly in capacity-constrained services, such as airlines, retail outlets, hotels, and professional services, where the profitability of the operation is closely linked to the use of the current capacity and this reinforces the need for the shiftability capacity practice.

4.3.2 Offloading Capacity

The study, additionally, sought to establish the presence of offloading capacity management practice among the Kenyan banks. Using Likert scale to rank several indicators of offloading capacity management practices as applicable within the organization, the results are presented in Table 4.5.

Table 4.5: Offloading Capacity

Statement	Mean	Std. Deviation
The bank has a budget for advertising and promotion of its products	4.582	.861
The bank strives to understand what suffers the customer to establish whether the front line staff have a role to play	4.433	1.053
The bank strives to achieve the highest utilization of the resources it has depending on the available resources	3.900	.959
The bank offers limited number of services and encourages self-service by the customers	3.733	1.432
In the case of special needs made by customers that is outside the usual operations, the bank encourages the use of appointment and reservations to avoid overcrowding and at the same time utilize the bank employees effectively	3.433	1.351
The bank holds inventory in anticipation of changing demand	3.367	1.406
The bank charges different price for different products at different times	3.267	1.592
The bank aims at improving the size of the service delivery point by pursuing acquisition of spaces facility	2.267	1.048
The employees in the bank are always rescheduled to increase the service levels at any given time in the organization	2.233	1.889
The bank requires customers to wait for the service in a queue while awaiting for services and this improves the quality of services	2.100	1.155
The bank has established recovery procedures to handle cases where high demand is present	2.067	.907
The bank warns customers by way of notices or media announcement	1.967	1.098
Overall Mean	3.112	

The results on offloading capacity used by the commercial banks shows that the popular practice is for the banks to establish budgets for advertising and promotion of its products such that customers will not have to be served at the banking halls but rather at the comfort of their offices or homes (M=4.582). The bank striving to understand what suffers the customer and in the process to establish whether the front line staff have a role to play in the problem (M=4.433) came out as a common offloading strategy among the banks. The establishment of limited bank offerings in the banking hall and encouraging self-service by the customers and charging different prices for services when sought at non-peak hours came out (M= 3.267) came out as a common practice among the banks. However, practice whereby the bank warns customers by way of notices or media announcement (M=1.967) and the establishment of recovery procedures to handle cases where high demand is present came out as the least applicable offloading capacity management practice. However, the high standard deviations among the firms response shows that there exist a difference in the applicability of these practices among the banks and this could be due to the customer base that the banks have which will determine whether it will need to create spare capacity.

As Alp and Tan (2006) point the study reinforces the position the offloading capacity strategy is being used by the banks to increase their performance in situation where there exist a constrained capacity. Therefore the study points to the fact that this strategy is not popular in the banking industry because most of the services sort by the customers is not booked by the clients like in the airline, hotels, and car rental. Consequently causes of overbooking do not arise in the banking industry (Ong'ondo, 2013). This view was shared by Cagliano et al (2001) who observed that in service delivery there is not the possibility of producing the complete service package in advance

of demand and holding it as an inventory and therefore the real time element of service production makes the matching of supply and demand very important.

4.3.3 Sub-Contracting Capacity

The section covered the statement regarding sub-contracting as a capacity management practice in commercial bank in relation to service delivery. The results are presented in Table 4.6.

Table 4.6: Sub-Contracting Capacity

Statement	Mean	Std. Deviation
The use of experts in areas such as taxation, treasury and operational decisions enables the bank to deliver quality goods and services to its clients and therefore increase its competitiveness	4.443	1.185
The bank operational cost has reduces from sub-contracting of services	4.360	1.149
In the case where the bank has increased workload, it engages the services of temporary staff members	4.333	1.124
The bank has rented space that allows for service delivery to be offered outside the established premises and this facilitates better service delivery	4.267	1.306
The bank has in place different contractors available to offer services when the need arises	4.167	1.332
Sub-contracting of services by the bank has led to the loss of control over the service process	3.967	1.273
The bank shares some of its equipment e.g servers with other firms to reduce its operational cost.	3.800	1.710
By the bank sub-contracting, it has led to the loss of core-competencies in-house	3.633	1.473
Different branches in the bank share common equipment such as servers to increase the capacity utilization of equipment sharing	3.500	1.502
The bank has temporary staff who fill in during periods of high service demand	2.600	1.354
Overall mean	3.779	

The findings indicate that sub-contracting by the banks take different forms but the most common form of outsourcing involves the use of experts in areas such as taxation, treasury and operational decisions enables the bank to deliver quality goods and services to its clients and therefore increase its competition (M=4.443). As a result of this, the bank operational cost had reduced from sub-contracting some of services. As one way of managing the excess workload, the banks were also found to engages the services of temporary staff members (M=4.333) who bridge the deficit present and therefore manage effectively the capacity. However, the least practiced form of sub-contracting by the banks was the banks to have temporary staff who fill in during periods of high service demand (M=2.600) and also, surprisingly, different branches in the bank sharing common equipment such as servers to increase the capacity utilization of equipment shared.

This finding on relevance of outsourcing to the banks corroborates that of several researchers. For instance, Johnson (1997) believed that organizations could improve the delivery of goods and services to customers and hence increase their competitive advantage by outsourcing to "experts in the area". Savage (1996) and Doyle (1991) support the concept of service improvement through outsourcing. Doyle's (1991) through his research supports this view, and also supports the prediction that outsourcing in the health industry reduces costs through the sharing of expensive equipment

4.3.4 Level Capacity

Lastly, level capacity practice was probed to determine its presence in the banks. Table 4.7 presents a summary of the research findings.

Table 4.7: Level Capacity

Statement	Mean	Std. Deviation
The bank has segmented its customers in order to improve the level of service provision and tailor made the service provision to the needs of various customers.	4.633	.964
Service scheduling is a common operation practice in the bank to level the demand of services with the available resources to offer the service	4.233	1.074
The bank has in place incentives to customers who need the banks services during the off peak period	3.800	1.669
The bank uses appointment and reservations system on its service offerings	3.467	1.383
The bank has developed the off-peak demand on some of its products	3.067	1.507
The bank advertises and promotes customers to seek services during off-peak periods	2.967	1.629
The bank has in place incentives to customers who need the banks services during the off peak period	2.800	1.669
The banks alters its operations with fluctuating demand at any given time	2.433	1.431
The bank has established an appropriate demand forecasting system that facilitates prior planning in the organization	2.133	.973
Overall Mean	3.281	

The findings as contained in Table 4.8 shows that as a way of coping with customer demand, the banks have segmented its customers in order to improve the level of service provision and tailor made the service provision to the needs of various customers (M=4.633). In addition, a common practice is scheduling of service offering so that the bank matches the customer demand to the

available resources to offer the service (M=4.233). The findings further show that the banks had come up with off-peak product offering whose with incentives being provided to customers who seek the services. However, to a moderate extent, the banks were found to use appointment and reservations system on its service offerings as well as advertising and promoting customers to seek services during off-peak periods. The results also show that a small extent the use of such capacity management practices as establishing an appropriate demand forecasting system that facilitates prior planning in the organization and altering its operations with fluctuating demand (M=2.433) was to a limited extent being applied by the banks. The fact that the use of elements of level practice was found to be a mixed strategy in the bank's operations augurs well with arguments advanced by Cagliano et al (2001) who believed that in service organizations there is always a possibility of a large number of members coming in any time and very low number of members in off-peak season resulting in either a waiting line or underutilization and therefore a pure level capacity management strategy would be unsuitable.

4.4 Service Delivery

This section sought to establish the effect of adopting capacity management practices on the level of service delivery among the banks. This is because the overall effect of a firm capacity management is to positively affect its performance through improvement in service delivery. The measures of service delivery include customer satisfaction, cost, reliability and availability. The results are presented in Table 4.8 below.

Table 4.8: Effect of capacity management on service delivery

Indicator	Mean	Std. Deviation
Service Availability	4.520	.7367
Customer growth and market share	4.306	.821
Service Reliability	4.250	.906
Capacity utilization	3.961	.723
Customer satisfaction	3.928	.696
Queue management in the bank	3.914	.714
Service availability	3.611	.802
Overall Mean	4.070	

The results show that the capacity management practices instituted by the banks has had the greatest effect on the firms service availability (M=4.520) which will, ceteris paribus, lead to an increase in the level of service delivery and also its growth in market share (M=4.306). However, the least effect of the capacity management practices on service delivery was experienced in service availability (M=3.611), improved queue management in the bank (M=3.914) and customer satisfaction (M=3.928).

4.5 Regression Equation

For quantitative analysis the study used regression analysis to establish the relationship between the implementation of capacity management on service delivery adoption of the banks in section 4.4 above. To determine the same, the relationship between the overall mean of each of the capacity management practices covered under section 4.3 was regressed with the resultant mean from the service delivery in section 4.4. From their overall means of each factor, as Gill and

Beger (2012) noted, when using multiple regression analysis, there is a possibility of endogeneity occurring whereby when certain variables are omitted, it leads to measurement errors. To minimize endogeneity issues, the most important variables that constitute capacity management practices were used.

The following model was adopted for the study.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \alpha$$

Y = Service Delivery

β_i = (i = 0 – 6) = Regression coefficient

X_1 = Shifting capacity management practice

X_2 = Offloading capacity management practice

X_3 = Sub-contracting capacity management practice

X_4 = Level capacity management practice

α = Unexplained variables not explained by the model

Table 4.9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.618 ^a	.382	.268	.23660

Source: Research data, 2015

The adjusted R^2 , also called the coefficient of multiple determinations, is the percent of the variance in the dependent explained uniquely or jointly by the independent variables. The model had an average coefficient of determination (R^2) of 0.382 and which implied that only 38.2% of

the variations in banks service delivery level is caused by the independent variables understudy (shifting capacity, offloading capacity, sub-contracting and level capacity).

Table 4.10: Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.789	3	0.9297	6.938	.009 ^b
1 Residual	5.213	27	0.134		
Total	2.864	30			

Critical value = 2.697

From the ANOVA statics, the study established the regression model had a significance level of 0.9% which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated F-value was greater than the tabulated value ($6.938 > 2.697$) an indication that the shifting capacity, offloading capacity, sub-contracting and level capacity, all have a significant effects on the bank service delivery level.

Table 4.11: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.612	.219		3.434	.000
	Shifting capacity	.318	.121	.251	2.554	.002
	Offloading capacity	.246	.107	.236	2.299	.004
	Sub-contracting capacity	.301	.164	.241	2.413	.003
	Level capacity	.278	.103	.201	2.105	.016

As per the SPSS generated output as presented in table above, the equation ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4$) becomes:

$$Y = 0.612 + 0.318X_1 + 0.246X_2 + 0.301X_3 + 0.278X_4$$

From the regression model obtained above, Constant = 0.612, shows that if all the independent variables (shifting capacity, offloading capacity, sub-contracting and level capacity) all rated as zero; the banks service delivery level would rate 0.612. While holding the other factors constant a unit increase in shifting capacity would led to 0.318 increase in service delivery. A unit increase in offloading capacity would lead to an increase in the banks service delivery by a 0.246 factor. The analysis was undertaken at 5% significance level. The criteria for comparing whether the predictor variables were significant in the model was through comparing the obtained probability value and $\alpha = 0.05$. If the probability value was less than α , then the predictor variable was significant otherwise it wasn't. All the predictor variables were significant in the model as their probability values were less than $\alpha = 0.05$.

CHAPTER FIVE: SUMMARY, CONCLUSION AND

RECOMMENDATIONS

5.1 Introduction

In this chapter, an attempt is made to give a summary of the research findings, conclusions, recommendation and suggestion for further research. The main purpose of this study was to establish if there exists a relationship between capacity management practices and service delivery of commercial banks in Kenya.

5.2 Summary

The results show that the commercial banks that formed the sample frame have been in operation in the market for a long time and majority of them had more than 500 employees. These suggest that the banks have established a wide branch network and also have a significant customer. The respondents were also found to be knowledgeable of the capacity management practices being employed by the banks. The common capacity management practices employed by the banks were found to be shifting capacity, offloading capacity, sub-contracting and level capacity management.

The study found that shifting capacity practices that were commonly employed by the banks include enhancement of employee capacity through offering staff training that will enable them to handle more than one task and therefore being able to be redeployed when the need arise, offering overtime services to the staff such as paying them at a premium in times when they

work outside the normal working hours as well as providing transport services for the staff. The shifting capacity management also involved transfer of resources between back room and front office functions in the bank and this was aimed at serving customers faster during the peak demands. Similarly, the offloading capacity strategy involved the bank offering direct intervention to customers and at the same time encouraging them to make reservation in cases where they need services outside the normal working hours.

The study indeed found that the capacity management practices employed by a bank has a positive influence on the service delivery of a bank. The regression model used show that capacity management practices affected the service delivery by the banks within Kenya. The regression was used to compare the magnitude of the coefficients of the independent to determine which one had more effects on service quality. From the model it was found that all the capacity management practices positively affected service delivery with the capacity of the bank to shift its operational resources to areas where there is a deficit coming out to have a the greatest effect to service delivery. All the independent variables were also found to be significant.

5.3 Conclusion

From the foregoing discussion it can be concluded that various capacity management practices are being employed by commercial banks in Kenya. These strategies include shifting demand, offloading, and sub-contracting capacity strategy. All these strategies aim at hastening the service delivery processes in the banks. This augurs well with the assertion of Armistead and Clark, (1991) who stated that the real time element of service production is the most important

task of any organization involved in service provision because it makes the matching of supply and demand very important particularly in capacity constrained services and in situation where the profitability of the operation is closely linked to the use of the current capacity. Hence due to the importance of these capacity management practices, the banks management involvement in the process of capacity management had the greatest influence on the process of implementation will influence the success of its implementation. This is in line with the observation of Aaltonen and Ikavalko, (2002) who stated that the major challenge in capacity management implementation appears to be more cultural and behavioral in nature, including the impact of poor integration of activities and diminished feelings of ownership and commitment.

The findings of the relevance of capacity management practices on the service delivery level of the banks makes it a critical success factor for the banks especially in a competitive environment where factors such as level of customers satisfaction will influence the banks level of competitiveness. This suggest that there is an interaction between capacity management practices that a firm a firm adopts, quality of service, and resources productivity or efficiency management which is at the heart of the planning and control process for operations management in services production. Therefore, quality and resource productivity are important in the strategy context as they impinge on the ability of the service organization to attain its competitive strategy described by a combination of perceived added value (by the customer) and price. Therefore, capacity management in services to match supply and demand has a direct influence on the ability of the service provider to achieve service quality and resource productivity targets.

5.4 Limitation of the Study

These findings must be interpreted against the backdrop of the methodological limitations of this research, which offer additional future research opportunities. First, the cross-sectional research design limits the extent to which cause-effect relations can be inferred. With such a design, it is plausible that high performing organizations might be better able to invest in more capacity practices. The limitations of survey design adopted might not have allowed for the capture of potentially important control variables that facilitate the interactions and influence of actions and performance by other functions in the organization.

Further, the study was limited in scope which means that the findings cannot be over generalized. This study was conducted with a strong presence of employees' in the commercial banks and it is possible that this exposure and working environment contributed significantly to their perceptions of the effect of capacity management on service delivery. There is need therefore to increase the number of respondents in each bank and target also the middle level and junior managers in the organizations. However, despite the above limitations, the findings presented in this paper have important policy implications.

5.5 Recommendation for Policy

It is therefore recommended that the management of commercial banks in Kenya should consider putting in place the recommended steps to even better its service delivery by enhancement of capacity management practices that have not been fully embraced by some banks such as introduction of systems that allows customers to serve themselves or even control the queue of customers. The findings show that capacity management strategies are in use in these banks,

though it was evident that some elements of capacity management strategies were still in their initial stages of implementation and therefore needs to be strengthened to help fortify their effects on enhancing the service delivery in the banks. These include popularizing provision of overtime to staff, offer of short time to staff and offer of “Do it Yourself” procedures to customers in relation to offloading capacity strategy. Others include enhanced use of the element of equipment sharing with regard to outsourcing strategy as well as alter of operations with fluctuating demand relative to level strategy

5.6 Recommendation for Future Studies

Whereas the research captured objective measures of service delivery in commercial banks in Kenya, which correlated with perceptual measures, future research that obtains objective measures for service delivery would be a substantial contribution to the capacity management practices. Further, the research should be extended to capture service delivery in the eyes of customers. While this research evaluated banks managers’ perceptions of capacity management and its effect on service delivery, customers should be surveyed to validate their perceptions.

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APPENDICES

APPENDIX I: COVER LETTER

Hellen Kawila Mwangangi

P.O. Box 48400- 00100

Nairobi.

September, 2015

Dear Respondent,

RE: RESEARCH QUESTIONNAIRE

This questionnaire (attached) is designed to gather information on the effect of Capacity Management on the Service Delivery 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, 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 the strictest confidence. Your co-operation will be highly appreciated.

Thank you for your anticipated kind response.

Yours Sincerely,

Hellen Kawila Mwangangi

APPENDIX II : RESEARCH QUESTIONNAIRE

Please give answers in the spaces provided and tick (✓) in the box that matches your response to the questions where applicable.

Part A: Demographic Information

1. Name of the bank (Optional).....

2. Length of continuous service with the bank?
 - a) Less than two years [] b) 2-5 years []
 - c) 6- 10 years [] d) Over 10 years []

3. For how long has your bank been operating in Kenya?
 - a) Under 5 years [] b) 6-10 years []
 - c) 11-15 years [] d) Over 16 years []

4. How many employees are there in the bank?
 - a) Less than 100 [] b) 101 – 400 []
 - c) 401 – 700 [] d) Over 700 employees []

PART B: Capacity Management Practices

5. Please indicate the extent to which shifting capacity management practice is employed by the bank in relation to service delivery; Where

1) **Very great extent**; 2) **Great extent**; 3) **Moderate extent**; 4) **Small extent**; 5) **Very small extent**

		1	2	3	4	5
1	The bank alters the number of service providers to meet the customer demands					
2	The bank alters the number hours worked by its staff to cope with the demands of its customers					
3	The bank employs part time staff on part time basis during periods of increased demands					
4	There is continued transfer resources between back room and front office functions in the bank					
5	The bank employees multi-skilled staff to perform a wider variety of tasks and therefore is able to meet the demands of various staff at the same time					
6	The bank shares facilities that are idle with the other branches that are having a shortage					
7	The different parts of the service delivery system are always sharing the excess capacities in the banking hall					
8	The bank adopts “do it yourself procedure” to customers					
9	The bank trains and develops the employee capacity to handle more than one task at a time					
10	The bank offers overtime facilities to its staff in cases where the prevailing workload is high in particular days					

11	The bank sub-contracts some of its tasks to outside providers during periods of high demand					
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6. Please indicate the extent to which offloading capacity management practice is employed by the bank in relation to service delivery; Where,

1) Very great extent; 2) Great extent; 3) Moderate extent; 4) Small extent; 5) Very small extent

		1	2	3	4	5
1	The bank charges different price for different products at different times					
2	The bank has a budget for advertising and promotion of its products					
3	The bank holds inventory in anticipation of changing demand					
4	The bank requires customers to wait for the service in a queue while awaiting for services and this improves the quality of services					
5	The employees in the bank are always rescheduled to increase the service levels at any given time in the organization					
6	The bank strives to achieve the highest utilization of the resources it has depending on the available resources					
7	In the case of special needs made by customers that is outside the usual operations, the bank encourages the use of appointment and reservations to avoid overcrowding and at the same time utilize the bank employees effectively					
8	The bank offers limited number of services and encourages self service by the customers					
9	The bank strives to understand what suffers the customer to establish whether the front line staff have a role to play					
10	The bank warns customers by way of notices or media announcement					
11	The bank has established recovery procedures to handle cases where					

	high demand is present					
12	The bank aims at improving the size of the service delivery point by pursuing acquisition of spaces facility					

7. Please indicate the extent to you agree with the following statements regarding sub-contracting as a capacity management practice in your bank in relation to service delivery; Where,

1) Strongly disagree; 2) Agree; 3) Indifferent; 4) Disagree; 5) Strongly disagree

		1	2	3	4	5
1	The bank engages different contractors in service provision to the bank and its customers					
2	The bank operational cost has reduces from sub-contracting of services					
3	Different branches in the bank share common equipment such as servers to increase the capacity utilization of equipment sharing					
4	In the case where the bank has increased workload, it engages the services of temporary staff members					
5	The use of experts in areas such as taxation, treasury and operational decisions enables the bank to deliver quality goods and services to its clients and therefore increase its competitiveness					
6	Sub-contracting of services by the bank has led to the loss of control over the service process					
7	By the bank sub-contracting, it has led to the loss of core-competencies in-house					
8	The bank shares some of its equipment such as servers with other firms to reduce its operational cost.					
9	The bank has in place different contractors available to offer services when the need arises					
10	The bank has rented space that allows for service delivery to be offered					

	outside the established premises and this facilitates better service delivery					
11	The bank has temporary staff who fill in during periods of high service demand					

8. Please indicate to what extent level capacity management practice is employed by the bank in relation to service delivery; Where

1) Very great extent; 2) Great extent; 3) Moderate extent; 4) Small extent; 5) Very small extent

		1	2	3	4	5
1	The banks alters its operations with fluctuating demand at any given time					
2	The bank has established an appropriate demand forecasting system that facilitates prior planning in the organization					
3	Service scheduling is a common operation practice in the bank to level the demand of services with the available resources to offer the service					
4	The bank has segmented its customers in order to improve the level of service provision and tailor made the service provision to the needs of various customers.					
5	The bank has in place incentives to customers who need the banks services during the off peak period					
6	The bank charges different prices for the same service at different time periods of the day					
7	The bank advertises and promotes customers to seek services during off-peak periods					
8	The bank has developed the off-peak demand on some of its products					
9	The bank uses appointment and reservations system on its service offerings					

PART C: Service Delivery

9. Indicate to what extent the adoption of Capacity Management Practices by your bank has affected the level of service delivery

Service Delivery Indicator	Unit of measure	2011	2012	2013	2014
Customer satisfaction	%				
Capacity utilization	%				
Service reliability	%				
Basic service (e.g teller transaction) duration	minutes				
Service availability	%				
Queue management in the bank	%				
Customer growth and market share	%				

THANK YOU SO MUCH FOR YOUR TIME

APPENDIX III: 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. GT 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 ^[2]
42. Victoria Commercial Bank

Source: Central Bank of Kenya (2014)