CUSTOMER RELATIONSHIP MANAGEMENT

AND SATISFACTION OF COMMERCIAL BANKS’ ACCOUNT HOLDERS

IN NAIROBI CITY COUNTY, KENYA

BY

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D86/CTY/21720/2010

A Thesis Submitted to the School of Business in Fulfillment of the Requirement for the Award of the Degree of Doctor of Philosophy in Business Administration (Marketing) of Kenyatta University

FEBRUARY, 2018
DECLARATION

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DEDICATION

To my husband Lewis; my sister Grace and my children Evans and Allan for their encouragement, financial and moral support in my academic journey.
ACKNOWLEDGEMENT

I owe a great deal of gratitude to my supervisors: Dr. Samuel Maina and Dr. Linda Kimencu; for their informed and invaluable guidance which kept me focused in all stages of this thesis development. I also express my gratitude to the faculty members at Kenyatta University, School of Business for their insights and accessibility whenever I needed their guidance in writing this thesis.

My special thanks go to my husband, Lewis and my children Evans and Allan for their understanding, encouragement and financial support during the long and demanding academic journey. In addition, I express my sincere gratitude to my parents, brothers and sisters for their encouragement during the study. Further, I would like to appreciate, Grace, Gladys, Gloria, Murithi Denis, Lenity, Dr. Barchok and Reverend Nicholas for their invaluable advice and prayers.
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<tr>
<td>ATM</td>
<td>Automated Teller Machine</td>
</tr>
<tr>
<td>CBK</td>
<td>Central Bank of Kenya</td>
</tr>
<tr>
<td>CRM</td>
<td>Customer Relationship Management</td>
</tr>
<tr>
<td>CV</td>
<td>Coefficient of Variation</td>
</tr>
<tr>
<td>ECSI</td>
<td>European Customer Satisfaction Index</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>KNBS</td>
<td>Kenya National Bureau of Statistics</td>
</tr>
<tr>
<td>MFIs</td>
<td>Microfinance Institutions</td>
</tr>
<tr>
<td>NACOSTI</td>
<td>National Commission for Science, Technology &amp; Innovation</td>
</tr>
<tr>
<td>RATER</td>
<td>Reliability, Assurance, Tangibility, Empathy, Responsiveness</td>
</tr>
<tr>
<td>SACCOs</td>
<td>Savings and Credit Cooperative Organizations</td>
</tr>
<tr>
<td>SE</td>
<td>Standard Error</td>
</tr>
<tr>
<td>SERVQUAL</td>
<td>Service Quality Model</td>
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<tr>
<td>SST</td>
<td>Self Service Technologies</td>
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<td>SMS</td>
<td>Short Message Service</td>
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<td>SPSS</td>
<td>Statistical Software for Social Sciences</td>
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<tr>
<td>ACSI</td>
<td>American Customer Satisfaction Index</td>
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<tr>
<td>ECSI</td>
<td>European Customer Satisfaction Index</td>
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<tr>
<td>SME</td>
<td>Small and Medium Enterprises Analysis</td>
</tr>
<tr>
<td>CFA</td>
<td>Confirmatory Factor Analysis</td>
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<td>KSH</td>
<td>Kenya Shillings</td>
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## OPERATIONAL DEFINITION OF TERMS

**Bank Account Holder:** A customer of a commercial bank who holds an account with a commercial bank.

**Commercial Bank:** An organization whose main business is deposit taking and advancing loans.

**Commercial Bank Centered Organizational Configuration:** Commercial banks’ customer centered business processes, banking hall organization, coordination of functions and employee customer orientation.

**Customer Relationship Management:** Cross-functional processes involving people and technology that aim at achieving continued partnership with customers in all customer contact points with personalized services that increase customer satisfaction.

**Customer Satisfaction:** Feeling of pleasure or fulfillment when a commercial bank responds to meet account holder needs and it is measured through positive experience with bank personnel, preference for bank products and services, image of the bank and access to banking services.

**Demographic Characteristics:** Quantifiable variables of a given population in a specified location such as age, gender, income.

**Value Based CRM:** Delivering superior value/ benefits to customers through commercial banks personalized communication, customized products and services.
Service Quality: Customers’ perception of commercial banks service excellence which includes five dimensions: reliability, assurance, tangibility, empathy and responsiveness.

Technology Based CRM: Technology enabled CRM implementation such as call centres, customer service desks, websites and emails.
ABSTRACT

Customer satisfaction is a dynamic parameter for measuring business success. As a modern measure for service quality, it ensures investment in development of customer centred management strategies such as Customer Relationship Management (CRM). Globally, CRM has been applied in the banking sector to enhance service quality and the resultant customer satisfaction which increases competitiveness, customer retention and profitability. Despite implementation of CRM programmes by commercial banks to increase satisfaction of account holders, customers continue to be dissatisfied with banking services. This study aimed at establishing the effect of CRM on satisfaction of commercial banks’ account holders in Nairobi City County in Kenya. The specific objectives of the study were to establish the effect of value based CRM, customer centred organizational configuration and technology based CRM on satisfaction of commercial banks' account holders and to assess the moderating effect of demographic characteristics and mediating effect of service quality on the relationship between CRM and satisfaction of commercial banks account holders. The study was anchored on CRM theory and was guided by positivism philosophy. It utilized a cross-sectional research design involving descriptive and explanatory research techniques. The target population was 34,649,583 account holders from commercial banks in Kenya. A sample of 400 respondents was selected using mixed sampling techniques. Primary data was collected using a 5 point likert scale using both open and closed-ended questionnaire guided by the researcher. Reliability of the research instrument was determined by conducting a pilot test which yielded Cronbach’s Alpha coefficient of 0.9. Construct validity was determined by use of confirmatory factor analysis while content and face validity was done by experts. Quantitative data was analyzed using both descriptive and inferential statistics and qualitative data was analyzed through content analysis with the aid of SPSS version 19. Descriptive statistics such as mean, frequency distribution and standard deviation were used to describe the characteristics of the variables. Diagnostic tests for normality, outliers, linearity, multicolinearity and homogeneity of variance were carried out to ensure multiple linear regression assumptions were met. Simple linear and multiple linear regression were conducted to assess the relationships between independent, mediating, moderating and dependent variables. The hypotheses were tested using a P-value <0.05 to assess statistical significance while value of adjusted R² measured amount of variation in customer satisfaction that was explained by CRM variables. The relationship between value based CRM, Customer centred organizational configuration, technology based CRM and satisfaction of commercial banks account holders in Nairobi County was found to be statistically significant at 5% significance level. In addition, demographic variables; age, gender and income had a moderating effect on the relationship between CRM and satisfaction while service quality had a statistically significant mediating effect on the relationship between CRM and satisfaction of commercial banks account holders at 95% confidence level. The study concluded that CRM has a positive and statistically significant effect on satisfaction of commercial banks account holders in Nairobi City County, Kenya. The findings of the study reveal that commercial banks management should invest more in customer centred organizational configuration and technology based CRM because they have a significant effect on account holder satisfaction with commercial banking services. The CBK and the government can use the findings of this study to formulate CRM related policies that enhance satisfaction of account holders with commercial banks services. This study also contributes to the pool of knowledge and further research in terms of the interplay between CRM, service quality, demographic characteristics and satisfaction of account holders in commercial banks. The study suggests that similar studies be carried out in other service industries.
CHAPTER ONE
INTRODUCTION

1.1 Background of the Study
Customer satisfaction is a core concept in marketing literature and is an important goal in all marketing activities. It is critical for long term success and sustainability of any organization (Peppers & Rogers, 2005, Hansenmark & Abinsson, 2004). Globally, businesses are focusing on customer satisfaction in order to improve products and services and enhance customer loyalty in the face of increasing competition (Turkyilmaz & Ozkan, 2007). This continued focus is motivated by the fact that enhanced customer satisfaction increases retention and loyalty, competitive advantage, market share and profits as well as improved organizational performance (Carter, 2010; Voss & Voss, 2008).

Customer dissatisfaction on the other hand leads to switching, complaints and consequently reduction in profitability, market share and competitiveness (Munari & Manrai, 2013). To retain customers in the highly competitive and changing market arena, most companies are emphasizing on maintaining and continuously expanding their customer base using customer centred marketing strategies for survival aimed at maintaining and enhancing relationships with customers (Krishnamoorthy & Srivasan, 2013). Firms have realized the need for creating and maintaining long lasting relationships with the existing customer base than attracting new customers and providing customized services preferred by customers (Ampofu, 2012).

Globally, banks are faced with a highly competitive environment as they progress from product and sales focused practices to a marketing orientation where
competition is based on customer centred strategies that enhance customer satisfaction (Godson, 2009). The banking environment has also undergone a major transformation caused by the changes in regulatory reforms and technological advancement that has escalated the level of competition (Roy & Shekar, 2010). The advancements in technology have also increased customer awareness and demand for quality banking services, value for their money and a relationship with their banks.

To maintain lifetime relationships with customers, commercial banks have adopted customer relationship management (CRM) practices such as value based CRM, customer centred organization and technology based CRM (Sin, Tse & Yim, 2005). These CRM practices enable banks to enhance quality service delivery and the resultant customer satisfaction (Chan & Ahmad, 2013). In addition, banks’ investment in CRM increases profitability, competitiveness and market share (Narver & Slater, 1990; Ul Haq, Rammay, Urehman & Jam, 2010). Banking is a customer centred service where CRM, customer satisfaction and service quality have become essential differentiating factors in the dynamic financial environment (Sadek & Tantawi, 2009).

Hence the financial services industry in Africa as well as Kenya in particular is continuing to experience challenges such as achieving financial targets and satisfying their customer base. These developments have made the banking sector more competitive as banks strive to meet customer demands through development of various service quality initiatives that aim at customer satisfaction (KPMG, 2013). To remain competitive, commercial banks in Kenya have to understand their customers’ financial needs because their fulfillment is critical to customer satisfaction and long term customer relationship management (Sin et al., 2005).
1.1.1 Customer Relationship Management

Customer Relationship Management (CRM) refers to an integrated approach to practices and technologies that aim at customer retention through effective management of relationships with customers as opposed to transaction-based marketing (Christopher, Payne & Ballantyne, 1991). It comprises a company-wide, cross-functional and customer-focused business processes that involve people and technology (Chan & Popovich, 2003). Hence, technology applications link the company’s front office and back office functions with the company’s customer contact points such as internet, e-mail, call centres and advertising which aim at enhancing customer satisfaction (Fickel, 1999, Eckerson & Watson, 2000).

Parvatiyar and Sheth (2002) on the other hand argue that CRM is a strategy and process of acquiring, retaining and partnering with customers in order to create superior value for both parties. Similarly, Thakur, Summey and Balasubramanian (2006) posit that CRM involves elements of marketing, sales, services, operations and information technology (IT) which aim at understanding the behaviour and needs of customers. As a business strategy, CRM incorporates processes, functions and networks that deliver value to customers at a profit. It also helps firms to acquire new customers, satisfy and retain them so as to maximize their lifetime value (Buttle, 2006). It involves identification and interaction with customers, differentiation and customization of products and services. It also focuses on customers’ satisfaction through transformation of the organizational structure, processes, culture and technology (Peppers, Rogers & Dorf, 1999).
In addition Sin, Tse and Yim (2005) argue that successful CRM implementation should be measured in terms of customer focus, CRM organization, knowledge based CRM and technology based CRM. Customers focus entails value added solutions and superior service delivery to customers through customized offerings and communication. Payne and Frow (2005) describes creation of value as process which involves co-creation of value by both companies and customers as well as management of interactions.

The concept of CRM organization focuses on customer centred organizational configuration which involves changes in organizational structure, commitment and management of resources by the employees. Organizing around CRM calls for implementation of changes in the organization especially on the way business processes are conducted in order to focus on customer satisfaction (Sin et al., 2005). The knowledge based dimension refers to the creation, transfer and application of the knowledge in an organization. Technology based perspective of CRM is concerned with availability of technology as an enabler in CRM implementation that facilitates the organization to customize services and reduce costs (Sin et al., 2005).

However, this study adopted a modified version of Sin et al. (2005) which included value based CRM, customer centred organizational configuration and technology based CRM. The study excluded knowledge based CRM because utilization of information obtained from customers can best be explained by the bank management and this study focused on the effect of CRM on satisfaction of commercial banks account holders.
1.1.2 Service Quality

Gronroos (2002) describes service quality as the perceived judgments resulting from an evaluation process where customers compare their expectations with what they perceive to have received. Kibera (1996) further argues that service quality is the conformance of a service to customer specifications and expectations and the higher the fit, the higher the satisfaction. Service quality is also conceptualized as a multifaceted construct comprising five dimensions. These dimensions are: Responsiveness, Assurance, Tangibility, Empathy and Reliability (RATER); (Buttle 1996; Parasuraman, Berry & Zeithaml, 1988; Cronin & Taylor, 1992). Tangibility refers to physical facilities, employees and equipment used by the service provider (Sureschander, Rajendran & Kamalanabhan, 2002). Reliability reflects the dependability of the service provider and accuracy of performance while responsiveness means the employees’ ability to act promptly and their readiness to help customers (Buttle, 1996). Assurance refers to the knowledge, courtesy and confidence of employees while empathy is the ability to provide caring and individualized attention to the customers (Robledo, 2001).

In addition Zeithaml, Bitner and Gremler (2006) describe service quality as the general judgmental attitude in connection with the overall excellence of superiority of the service. It is the level of discrepancy between customer expectations and perception of the service provided. In contrast, Sultan and Wong (2010) conceptualize service quality as an attitude emanating from customers’ long term assessment of services received. However, the current study adopted the five dimensions of service quality namely; responsiveness, assurance, tangibility, empathy and reliability as postulated by Parasuraman, Berry and Zeithaml (1988) in examining the mediating
role of service quality on the relationship between CRM and customer satisfaction in commercial banks. Service quality can best be described by account holders because they are the receivers and subsequent users of the services provided by the commercial banks. Therefore, they are in a position to assess commercial banks quality of services offered by bank personnel after service encounters.

1.1.3 Customer Satisfaction

Customer satisfaction is a complex construct that is defined in various ways by different authors who have approached it as a response to an evaluation process. Hence, customer satisfaction is a person’s feeling of pleasure or fulfillment that results from comparing perceived performance and expectations (Oliver, 1980). It is the outcome achieved when service or product benefits meet the customer’s expectations (Kotler & Keller, 2006). Giese and Cote (2000) and Fornell (1992) view satisfaction as an overall evaluation of the customer’s experience with a product or service. Further, Howard and Sheth (1996) describe customer satisfaction as a psychological condition that results when disconfirmed expectations are compared with the consumer’s feelings about their consumption experience. It is also a judgmental attitude that depends on a specific consumption.

Customer satisfaction involves cognitive and affective responses which result from service encounters (Fecikova, 2004). The cognitive component refers to the customer’s evaluation of the perceived performance in terms of adequacy in comparison to customer’s expectation standards. The affective component is the emotional aspects such as happiness, surprise, and disappointment. Further, Hansemark and Abinson (2004) assert that satisfaction is an overall customer attitude
arising from the differences between service providers’ performance and perceived quality expectations regarding the fulfillment of needs, goals and desires. This contrasts with Battisti and Salini (2011) who describe customer satisfaction as a latent variable that cannot be observed but is transaction specific, while service quality reflects a long term attitude that is more enduring. The debate on the relationship between service quality and customer satisfaction has been advanced by scholars over the years. However, the concepts are distinct but related in nature. The service quality models assume that consumers come into a service encounter with prior expectations which is matched with an actual service encounter to determine the service quality. The customer is satisfied if the service experience meets the expected service. Hence high quality services increase customer satisfaction (Parasuraman, Berry & Zeithaml, 1985). According to Sahieh (2006), service quality precedes customer satisfaction that is associated with one transaction at a time as well as the emotional reaction to a product or service encounter.

In the current study, customer satisfaction is described as the overall assessment of a customer’s experience after a service encounter with a commercial bank and the study proposed that CRM affects account holder satisfaction with commercial banking services. The study used a modified version of hierarchical customer satisfaction measures developed by Mihelis et al., (1998). These measures are positive experience with banks’ personnel, preference for banks’ products and services, the image of the bank and access to banking services. According to Mihelis et al., (1998) who measured customer satisfaction in the private banking sector in Greece, customers were satisfied with personnel and access to banking services while they were dissatisfied with cost of services, waiting time and the image of the bank.
The use of customer satisfaction measures such as customer loyalty, repeat purchase and referrals may not entirely measure account holder satisfaction because customers are forced by circumstances to buy services of one bank either by the employer or by virtue of the banks’ accessibility. Banking services are intangible and the feelings towards bank employees capabilities, services, image and its accessibility can best be assessed by the customers who have an experience with those banks. As indicated by Jeong and Lee (2010), customer satisfaction represents emotions, reactions and experiences of a customer towards offerings of a service provider. Further Boone and Kurtz (2013), argue that customer satisfaction represents the customers’ voice regarding their appraisal of the extent to which services meet or exceed their expectations.

1.1.4 Consumers’ Demographic Characteristics

Demographic characteristics are quantifiable indicators of a given population in a specified location such as age, race, gender, education, income, mobility and marital status. These characteristics provide researchers with demographic information on their sample and make classification of the sample and interpretation of results meaningful (Elanian, 2003). These demographic characteristics such as age, gender and income are moderators of customer satisfaction in many service industries including banking the industry (Narteh & Kuada, 2014). Marketing scholars have also demonstrated the importance of moderator variables such as consumer characteristics in relation to customer satisfaction and loyalty link in different industries (Evanshitzky & Wunderlich, 2006; Ranaweera, McDougall & Basal, 2005).
Consumer demographic factors have been found to be important when examining customer relationship management and satisfaction. The consumer characteristics among other moderator variables have the ability to enhance understanding of the relationship between independent and dependent variables (Walsh, Evanschitzky & Wunderlich, 2008). However, studies interrogating the moderating effect of demographic characteristics on customer satisfaction reveal mixed findings and indicate both positive and negative outcomes (Evanschitzky & Wunderlich, 2006). Notably previous studies such as Zulkifli and Tahir (2012) did not find any significant relationship between age and gender and bank customers’ perception of CRM practices and satisfaction. Hence, there is need for an empirical study to validate such propositions. This study assessed the moderating effect of demographic characteristics (age, gender, income) on the relationship between CRM and customer satisfaction of commercial banks account holders.

1.1.5 Commercial Banking Industry in Kenya

The banking industry in Kenya is guided by the Company’s Act, (Cap 486, 2008), Banking Act (Cap 488, 2012) and the various prudential guidelines issued by the Central bank of Kenya (CBK). The CBK is responsible for the formulation and implementation of monetary policy that ensure liquidity, solvency and effectiveness of the financial sector. The structure of the financial sector comprise commercial banks, investment banks, savings and credit cooperative societies (SACCOS), stock brokerage entities, mortgage financing companies, microfinance institutions (MFIs) and foreign exchange bureaus (CBK, 2015).
The banking sector has recorded positive growth in assets, loans, deposits and profitability. The total assets grew from Kenya shillings (Ksh) 2.70 trillion in 2013 to 3.20 trillion in 2014 while total loans and advances went up by 23% in 2014 to Ksh.1.89 trillion compared to Ksh.1.53 trillion in 2013. The deposit base increased from Ksh.1.94 trillion in 2013 to Ksh.2.30 trillion in 2014 which translates to a growth of 1.85%. The profitability increased by 14% to Ksh.141.3 billion in 2014 compared to Ksh.124 billion in 2013 (Banking survey, 2015). In addition to advancing loans and mobilizing savings, commercial banks offer diverse services.

The major services offered by the commercial banks include a variety of services such as liability products, asset products and electronic banking services offered to individuals and organizations. The liability products include fixed and regular deposits, telegraphic money transfer, foreign exchange transactions and safe deposits. The asset products include loans such as personal, business, mortgage, overdraft, motor vehicle loans, and bonds. Other services offered are standing order payments, discounting bills of exchange, share brokerage and insurance and online banking services (CBK, 2015).

Nevertheless, banks are faced with challenges of new requirements generated by increased use of ICT to facilitate delivery of quality services. Information technology has replaced manual processes and related controls resulting in increased cases of ICT frauds related to use of computer, mobile and internet based online transactions (CBK 2014). Therefore, for banks to remain financially competitive in the ever-changing market environment, they need to design services that leverage on ICT, such as customer relationship management that can deliver accurate and timely services and
information to customers. In the contemporary banking sector, customers have access to unlimited information via ICT and are searching for a one-stop financial partner that can meet all their financial needs.

Moreover commercial banks are also increasingly offering electronic banking service such as Automated Teller Machines, mobile banking, and websites that facilitate customers to obtain information about their accounts, pay bills; open new accounts and make funds transfer (CBK, 2014). There has also been a movement towards banks offering other services that earn them revenue and enhance customer satisfaction. These services include consultancy, custodial services for estates and trusts, corporate finance, investment advisory services, salary processing and safekeeping of valuable items among others (CBK, 2014). In addition, banks have embraced use of information communication technology (ICT) to enhance quality service delivery and customer satisfaction as survival strategies.

The new developments in ICT have resulted in customer demand for quality service where deviation from service expectations lead to bank switching and having multiple accounts in different banks (Maina, 2014). This raises concerns over the level of customer satisfaction with services rendered by commercial banks in Kenya. The current study therefore, focused on the effect of CRM on customer satisfaction among account holders of commercial banks in Kenya. However, the study excludes microfinance banks, SACCOS and other non-bank financial institutions.
1.2 Statement of the Problem

Commercial banks in Kenya are experiencing unprecedented challenges such as escalating competition between banks and new entrants such as insurance companies, SACCOS, microfinance banks and telecommunication companies which are providing innovative alternative banking services such as MPESA (World Retail Banking Survey, 2012). These new challenges, coupled with increasing new customer demands and technological advancements have resulted in commercial banks losing potential business opportunity due to customers’ switching from banks to alternative service providers. These challenges have most likely threatened the survival of commercial banks such as Imperial, Dubai and Chase banks which were placed under receivership in 2016.

According to the Kenya banking survey (2015), the average banking industry customer satisfaction index is approximately 57% which postulate an average level of satisfaction among consumers of commercial banking services. This level of customer satisfaction in the industry and the variability in individual banks satisfaction index underscore the need for an empirical study on CRM and customer satisfaction. For instance, Maina (2014) assessed the effect of consumer national ethnocentricism and willingness of University of Nairobi community to buy banking services and found that 98.1% of the respondents had multiple accounts in different commercial banks which presupposes an absence of satisfaction with a single bank among the consumers. A household survey by FinAcess (2016) also found that 35% of customers were using three or more financial service providers and that commercial banks experienced higher levels of account closure or dormancy than other service providers. Further, world retail banking online survey (2012) on satisfaction with
banking services found that 53% of the customers were willing to leave their banks due to poor service quality, 49% would switch to find an easier banking experience, and 9% were likely to change banks within 6 months while 51% were confident to remain in their primary banks for 6 months.

Similarly, global banking survey (2014) indicates that banks were facing rapid changes in customer needs and expectations, decline in customer satisfaction as well as increase in switching of service providers. The survey further indicated that customer satisfaction levels are being eroded by nagging operational issues and reduced budgets which result in additional burden on customer service personnel thus impacting negatively on service quality. The study further, asserts that the alternative digital platform meant to improve service delivery has not been effective due to security and technical concerns.

In a study on the relationship between self-service technology (SST), service quality, CRM, customer satisfaction and loyalty, Djajanto, Nmran, Kumadji and Kertahadi (2014) found that SST, service quality and CRM had a significant effect on satisfaction and customer loyalty. The findings are similar to the ones reported by Meuter, Ostrum, Roundtree and Bitner (2000) and Dabholkar (1996) who established a relationship between self-service technology, customer satisfaction and loyalty. These findings support the position held by Bitner (1990) and Parasuraman et al., (1988) that service quality enhances customer satisfaction. Although these studies established the direct relationship between CRM and satisfaction, the mediating effect of service quality on such relationships as well as the moderating role of demographic characteristics were not evaluated. These were the focus of this study.
Consequently, CRM and customer satisfaction in the developing countries’ banking sector has received limited focus from researchers. For instance, Thuo (2011) investigated the effect of relationship management practices on competitiveness of commercial banks and found that banks were using CRM to increase their performance and competitiveness. The study indicates that CRM affects performance and competitiveness of commercial banks but did not focus on other factors such as service quality, demographic characteristics and customer satisfaction that affect performance. The current study further assessed the effect of CRM, moderating effect of demographic characteristics and mediating effect of service quality on satisfaction of commercial banks’ account holders in Nairobi City County, Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study was to establish the effect of customer relationship management on satisfaction of commercial banks account holders in Nairobi City County, Kenya.

1.3.2 Specific Objectives

The specific objectives of this study were to:

(i) Establish the effect of value based CRM on satisfaction of commercial banks account holders in Nairobi City County, Kenya.

(ii) Assess the effect of customer centred organizational configuration on satisfaction of commercial banks account holders in Nairobi City County, Kenya.

(iii) Determine the effect of technology based CRM on satisfaction of commercial banks account holders in Nairobi City County, Kenya.
(iv) Assess the moderating effect of demographic characteristics on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

(v) Determine the mediating effect of service quality on the relationship between CRM and satisfaction of commercial banks’ account holders in Nairobi City County, Kenya.

1.3.3 Research Hypotheses

**H\textsubscript{01}**: Value based CRM has no effect on satisfaction of commercial banks account holders in Nairobi City County, Kenya.

**H\textsubscript{02}**: Customer centred organizational configuration has no effect on satisfaction of commercial banks account holders in Nairobi City County, Kenya.

**H\textsubscript{03}**: Technology based CRM has no effect on satisfaction of commercial banks account holders in Nairobi City County, Kenya.

**H\textsubscript{04}**: Demographic characteristics have no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

**H\textsubscript{04(i)}**: Age has no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

**H\textsubscript{04(ii)}**: Gender has no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.
H_{04(III)}: Income has no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

H_{05}: Service quality has no mediating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

1.5 Significance of the study

The findings of this study contribute significant empirical evidence on the effect of CRM on account holder satisfaction in the banking sector. The results provide greater insights to management, policy makers and other stakeholders in the sector to understand the relationship between CRM and satisfaction. These findings broaden the researchers’ understanding of the relationship between CRM and satisfaction as well as their significance in the financial sector.

The study provides some insights to bank managers on the role played by their CRM policies, actions and activities in shaping their service quality hence customer satisfaction. Therefore, it adds value to marketing management in the banking and other sectors of the economy in terms of how to manage customer relationships in order to create superior customer value through enhanced customer satisfaction. The study findings inform bank managers and other CRM practitioners on the importance of developing and implementing appropriate CRM strategies that enhance customer satisfaction and ultimately increase long term usage of products and services. It provides an elaborate framework on CRM, service quality and customer satisfaction that can serve as evaluation metrics on the effectiveness of CRM investment by commercial banks and other organizations.
The findings of this study have significant policy implications to the commercial banks and CBK. The regulator CBK can utilize this knowledge to facilitate formulation and evaluation of policies that focus on satisfaction of commercial banks account holders. This adds value to the supporting information on customer related dynamics that undermine business growth in the banking sector. The information gathered from this study sheds more light to CBK, National Treasury and Kenya vision 2030 team on the effect of CRM and satisfaction in commercial banks which are a critical segment in the realization of Kenya’s vision 2030.

This study also addressed the scholarly need for further studies from developing countries specifically in Africa. It contributes to the pool of research in CRM and customer satisfaction which is limited in developing countries such as Kenya. The empirical insights stemming from this study contribute to the advancement of new knowledge that broadens the understanding of CRM and satisfaction with regard to commercial banks account holders. Therefore, the study contributes to empirical knowledge of relationship marketing by providing conceptual and empirical evidence on the effects of CRM on satisfaction among commercial banks account holders.

1.6 Scope of the Study

The commercial banks customers in the entire republic are served by the various commercial banks’ branch network and their agents. This study focused on 40 commercial banks that serve 28,234,334 account holders. The key respondents were drawn from the account holders served at the commercial banks headquarters in Nairobi County Central Business District (NCBD). Nairobi County was selected
because all commercial banks in Kenya have their headquarters in Nairobi CBD. The exclusion of other financial service providers such as SACCOS, microfinance banks implies that results can only be generalized to commercial banks account holders.

This study focused on the relationship between CRM and customer satisfaction of commercial banks’ account holders. The CRM measures included customer relational focus, customer centred organizational configuration and technology based CRM (Sin et al., 2005). Service quality was measured using indicators of reliability, assurance, tangibility, empathy and responsiveness (Parasuraman et al., 1988). The measurement of Customer satisfaction was limited to a modified version of hierarchical criteria for measuring customer satisfaction developed by Mihelis et al., (1998) namely; positive experience with banks’ personnel, preference for banks’ products and services, image of the bank and access to banking services. The study also focused on age, gender, and income as demographic characteristics of account holders. It also used validated scales for measuring CRM and service quality as determinants of customer satisfaction, despite the existence of other determinants such as organizational, environmental and personal factors.

1.7 Limitations of the Study
The researcher used a survey questionnaire to collect quantitative data which was affected by bias such as dishonesty in reporting and non-response. The limitation arising from lack of representativeness due to non-response was experienced because bank respondents dislike participating in surveys for reasons related to confidentiality, security and time constraint. This was overcome by maintaining confidentiality and presenting to them the letters from Kenyatta University and NACOSTI that authorized the study.
Another limitation emanated from scarcity of relevant literature pertaining to CRM and customer satisfaction in Kenyan commercial banks. To mitigate this, the researcher reviewed studies carried out in developed and other developing countries. In addition, the nature of respondents presented a limitation. The respondents were drawn from headquarters of commercial banks account holders who were receiving services in Nairobi city irrespective of their branch of origin. However, the stated limitations did not compromise the findings of the study due to the interventions highlighted.

1.8 Organization of the Thesis

The thesis is organized in five chapters. Chapter one captures the background of the study including the variables; CRM, service quality, demographic characteristics and customer satisfaction. This chapter also consists of the statement of the problem, research objectives and hypotheses, scope, significance and limitations of the study. Chapter two presents a review of the theoretical and empirical literature related to the study variables. The chapter briefly discusses the relationship between key variables; CRM, service quality, customer satisfaction and demographic characteristics. From the literature reviewed, research gaps are drawn and presented in a table. The concept of the study is formulated in line with the objectives and hypotheses of the study and presented in a conceptual framework depicting the relationship between variables.

Chapter three discusses the research methodology which consists of the research philosophy, design, data collection, target population and operationalization and measurement of variables. The chapter also provides analytical models used to test the study hypotheses and ethical considerations. Chapter four presents research
findings and discussion. The chapter also presents the diagnostic tests, descriptive and inferential statistics. Lastly, chapter five gives the summary, conclusion, study contribution to knowledge and practice. The chapter also proposes areas that need further study.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
This chapter presents a review of literature on customer relationship management, demographic characteristics, service quality and customer satisfaction which form the basis of this study. The chapter discusses the theoretical foundation and gives a summary of the research gaps which reveal the need for carrying out this study. The chapter also proposes a conceptual framework that depicts the relationship between variables and aid the development of research objectives and hypotheses.

2.2. Theoretical Review
Several theories and perspectives have been advanced by experts in CRM, service quality and customer satisfaction studies. However, there are several industrial perspectives that explain concepts and relationships with respect to the variables of this study. This study was anchored on customer relationship management theory and complimented by relationship marketing theory as well as Service Quality and European Customer Satisfaction models.

2.2.1 Customer Relationship Management Theory
CRM was proposed by Berry (1995) and is rooted in relationship marketing theory proposed by Berry in 1983. It is one of the most globally accepted philosophies that focus on long lasting engagement between firms and their customers for the mutual benefit of all parties (Buttle, 2004; Gronroos, 1994). As a business philosophy, CRM is a comprehensive strategic process concerned with identifying, satisfying, retaining, partnering and maximizing the value of customers by effectively managing the relationship between parties (Reichheld & Sasser, 2003).
Management of relationships between firms and their customers is critical to the survival of firms and all activities should focus on value creation as opposed to transactions. The engagement of firms and their customers result in value creation in form of quality products and services which connect the parties. Customer relationship management is concerned with challenges related to quality and maintaining strong long lasting relationships with firms and their customers (Payne & Frow, 2008; Peppers et al., 1999). It involves use of technology and data, value creation, sharing of customers’ knowledge, acquisition and development of long term relationships with specific customers. It also involves cross-function coordination of processes, networks, people, operations and marketing capabilities and technology applications in order to enhance customers’ value. These processes and activities enable firms to communicate and understand service needs of customers and prospects. The underlying principle in CRM is that successful customer engagement and business success is based on the ability to build a value based long lasting relationship with customers. As a business philosophy, CRM is based on individual customers and customized offerings and open lines of communication between parties (Boulding, Staelin, Ehrent & Johnson, 2005). Customer relationship management involves identification, interaction and transactions with customers using communication channels. It also facilitates segmentation of customers in order to create personalized relationships and services which promote customer satisfaction, loyalty, improved effectiveness and efficiency (Peppers et al., 1999; Richards & Jones, 2008).
As a multidisciplinary concept, CRM incorporates other disciplines such as marketing including relationship marketing and consumer behaviour. It also involves management and information technology such as e-commerce and human computer interaction. According to Sin et al., (2005) CRM is a multidimensional concept consisting of four broad components namely; key customer focus, CRM organization, knowledge based CRM and technology based CRM. Key customer focus involves customer centred decisions that take into account the welfare, needs and interests of customers. Customer driven organizations provide quality products and services that meet customer expectations and thus satisfying them more than competitors (Kotler & Armstrong, 2004). This requires companies to design personalized offers that meet key customer needs. The major aspects of key customer focus include customer centered marketing, identification of key customers life time value, customization and interactive marketing (Sin et al., 2005).

Organization CRM entails shaping the organizational structure and business processes and functions in order to deliver value to customers (Ryals & Knox, 2001). Organizing the entire company around CRM requires commitment and customer oriented employee skills and organizational structure (Agarwal et al., 2004). Successful implementation of CRM requires the support of top managers, customers oriented service employees and integration of processes and functions of a bank. Bank employees should possess customer oriented skills and knowledge to address and anticipate customer needs. CRM as a core business strategy integrates internal processes and functions of the firm to create and deliver value to targeted customers at a profit. It requires quality customer information which is generated by application of technology.
Implementation of CRM is also dependent on banks’ investments in technology based CRM which enables customers to access information and services. The CRM based technologies largely support banks processes of gathering customer information, decision making and faster communication (Marko, Sanader, Laketa & Masic, 2015).

The application of appropriate technologies that are in line with organizational objectives facilitate development of high quality customized offerings, lower costs and improve employee performance at customer contact points (Boyle, 2004). Technological advancements also enhance gathering and analyzing information about competitors, customers and other stakeholders and such information is shared among departments to aid in customization of the needed products and services. Some of the recent technology based CRM tools utilized by companies include data mining, computer aided manufacturing and design, data warehouses and software systems that aim at higher quality and customization of offerings that satisfy consumer needs (Sadek & Tantawi, 2009; Bouguerra & Mzough, 2011).

In addition, management of the knowledge generated is the cornerstone of successful CRM implementation. Knowledge management is concerned with transfer, application and creation of knowledge that facilitates satisfaction of customer needs. This is carried out by using existing internal data bases and conducting empirical research. The key factors in knowledge management include knowledge generation and learning, dissemination and responsiveness (Sadek & Tantawi, 2009; Sin et al., 2005). This theory supports the independent variables; value based CRM, customer centred organizational configuration and technology based CRM. This study adopted a modified version of Sin et al., (2005) namely value based CRM, customer centred organizational configuration and technology to establish the effect of CRM on
satisfaction of commercial banks account holders in Kenya. This theory was considered important because it supports the application of CRM variables which influence satisfaction of account holders.

2.2.2 Service Quality Model (Gaps Model)

The theoretical background of service quality originates from the studies carried out by Juran and Deming in 1950s. These were the original studies on measurement in manufacturing plants that resulted to the study of service quality (Deming, 1986). Parasuraman et al., (1988) further developed the gap model explaining the gaps that may arise between what the customer expects to receive and what the organization provides. Service quality is described as the gap between customer perception and expectations. Customer perception is what the customer thinks of the service provided while customers expectations refer to the service the customer anticipates to receive. The discrepancy between the customer perception of the service received and their expectations result in gaps or unmet expectations (Parasuraman et al., 1988).

Gap one occurs as a result of management’s misunderstanding of customers’ service quality expectation which arise from inadequate market research, limited vertical communication and bureaucracy. Gap two arises from management understanding correctly customer needs and wants but failing to set specified performance standards according to customer expectations. This creates a gap between service specification and service delivery. The third gap is the conformance gap that arises when employees fail to perform the services as stipulated by the service provider. The employees may lack the required skills or they may be unwilling to meet performance standards.
The fourth gap is the communication gap that occurs due to the wrong information passed to the customer by service providers’ employees. In the banking scenario, customers may not be informed about activities carried out in the back office and delays may be interpreted as failure. The bank customer understanding may also be affected by the image of the bank and its advertisements. Gap five is the difference between customer expectations of a service and their perception of the service provided. The customer expectations are determined by individual needs, word of mouth communication and past service encounter (Parasuramann et al., 1988). The five gaps are shown in figure 2.1.

The service quality (SERVQUAL) models assert that when customer expectations are greater than perception of service quality the customer will experience some level of dissatisfaction. When service expectations are less than perception of service, service quality will be more than satisfactory. However, if the expected service is equal to perceived service then the result is customer satisfaction which is the ultimate goal of offering quality services. Service quality also enhances profitable long term relationships between customers and service providers. In the context of this study, service quality was measured in terms of reliability, assurance, tangibility, empathy and responsiveness (Parasuraman et al., 1988).

According to the gaps model, customers expected service is a product of verbal communication, personal needs and past experience while perceived service is a function of service delivery and external communication. Critiques of this theory such as Gronroos (1982) and Letinen (1982) were of the view that SERVQUAL fails to account for image, functional and technical dimensions of service quality. Similarly,
Carman (1990) proposes that the model has a scale of more than five elements and should be customized to a specific service. However, Aldridge and Rowley (1998) argue that SERVQUAL model is the most widely used instrument in assessing service quality. This study used the SERVQUAL scale to assess service quality of commercial banks as perceived by account holders. This model was considered important in this study because it influences the relationship between CRM variables and satisfaction of account holders. The study examined the mediating effect of service quality on the relationship between CRM and satisfaction of commercial banks account holders.
Figure 2.1: Model of Service Quality Gaps


2.2.3 European Customer Satisfaction Index (ECSI Model)

The European Customer Satisfaction model (ECSI) evolved from the American Customer Satisfaction Index (ACSI) (Fornell, Johnson, Anderson & Bryant, 1996). The ECSI was based on the cumulative view of customer satisfaction which reflects the customers overall experience with a product or with the service providers. The model was developed by European foundation for quality management and introduced
in eleven European countries in 1999 (Zaim, Turkyilmaz, Tarim, Ulca & Akkas, 2010). The model assumes that perceived quality and value, customer expectations and corporate image are determinants of customer satisfaction. These key factors are assumed antecedents of overall satisfaction which further result in loyalty (Fornell et al., 1996).

The model splits perceived quality into product quality and service quality which relates to the consumers experience with a product and or service and is presumed to exert a direct effect on overall customer satisfaction (Navarro, Ignesias & Torres, 2005). The concept of value represents an aspect of customer experience with product or service in comparison to the price paid. It denotes the ratio of the perceived quality relative to the price and it is positively affected by perceived quality (Anderson & Sullivan, 1993; Fornell, 1992). Image is an important component of satisfaction and loyalty. It is expected to have a direct effect on value and a positive effect on customer satisfaction (Kristensen, Martensen & Eskildsen, 2000).

Generally customer expectations reflect the quality that customers anticipate to receive and results from prior consumption experience with products or services. It is an exogenous factor capable of influencing both value and customer satisfaction (Martensen, 2000). In this study satisfaction of commercial banks account holders was assessed using a modified version of Mihelis et al., (1998) which includes personnel characteristics, products and services, access to banking services and corporate image of the bank. This model was considered important because it informs the customer satisfaction variable with respect to products and services, perceived value and image of the bank.
2.3 Empirical Literature Review

The empirical literature review is made up of previous research studies on the relationships between the variables of the study which include CRM, service quality, demographic characteristics and customer satisfaction. The conceptual framework depicting the hypothesized relationships and the summary of research gaps are also presented.

2.3.1 Value based CRM and Customer Satisfaction

Value based CRM is an aspect of CRM which is at the core of business performance and entails value that customers and companies receive from each party as well as their social interactions (Payne & Frow, 2005). It is concerned with the company’s
application of information about customers to understand their needs, demands and expectations in order to increase monetary or relational value for both parties (Kumar, Baskaran, Mirchandani & Shah, 2012). It aims at maximizing the value of the company’s customer base by utilizing information derived from individual customers database to develop marketing strategies such as customized products, personalized communication and complaint handling techniques that enhance customer experience and customer engagement (Vrehoe & Lemon, 2013). Javed (2017) conducted a study on the influence of customer satisfaction, its perceived value and the mediation role of CRM on customer loyalty. The study was carried out among 250 respondents from ten different restaurants in Pakistan. The results indicated that customer satisfaction had a positive relationship with customer value and loyalty while CRM had a significant relationship with customer loyalty. The study further revealed that CRM mediated the relationship between Customer satisfaction and loyalty. The study was done in the hotel sector, so there is need to carry out such a study in the banking sector. In addition, the study did not consider important aspects of CRM such as value based CRM in relation to customized products, personalized communication and complaint handling.

Kurniati, Hamid & Arifin (2015) examined the effect of CRM and service quality on corporate image, value, customer satisfaction and value at Islamic banks branches in Indonesia involving 278 respondents. The study showed a significant direct relationship between CRM, corporate image, customer satisfaction and customer value. The study further revealed that customer value had a significant effect on customer satisfaction while it had non-significant effect on loyalty. Therefore, there is need to further clarify this contradiction by replicating the study in non-Islamic banks.
Rostami, Mohammadi and Yousepoor (2014) assessed the relationship between CRM and customer satisfaction in branches of Ghavamin Bank in Tehran city in Iran. The factors of CRM examined were service quality, service characteristics, level of access and complaint handling. The results revealed that the four CRM factors have a positive effect on customer satisfaction. The study did not however examine the effect of value based CRM on customer satisfaction; a gap that this study filled by examining the effect of value based CRM on customer satisfaction using other CRM measures such as product customization and communication personalization.

An empirical study by Halimi, Chavosh, Namdar, Espahbodi and Esferjaniet (2011), evaluated the contribution of personalization to customers’ loyalty across the banking industry in Sweden using secondary data collected through online database such as Ebsco and Emerald. The primary data was collected using a questionnaire administered to 100 customers in three banks in Sweden. The study results indicated a significant relationship between personalization, commitment, customer satisfaction and loyalty. In addition, customization of banking services was found to enhance the customers’ relationship satisfaction and commitment among bank customers. The study however did not adequately establish how value based CRM affected customer satisfaction in the banking sector. In a related study, Lindergreen and Antioco (2005) found that personalized attention was a significant variable but personalized messages were found to have a negative effect on CRM. Therefore, there was a need to clarify this contradiction. The current study filled this gap by examining the effect of value based CRM on satisfaction of commercial banks account holders.
Musriha (2012) examined the effect of service environment, employee communication on customer satisfaction at Mandiri bank in Indonesia. The study concluded that service environment and employee communication quality had a positive and significant effect on customer satisfaction and loyalty. The effect of service environment and employee communication on customer loyalty mediated by customer satisfaction was found to be positive. The study however did not establish the effect of value based CRM on customer satisfaction.

Komunda and Osarenkhoe (2012) examined the effect of service recovery on satisfaction and loyalty. The survey involved 120 staff and students of Makerere University business school students in Kampala, Uganda who were customers of commercial banks. The study developed a conceptual framework encompassing service recovery, communication, customer satisfaction and loyalty. The results indicated that communication had a significant and positive relationship with service recovery and customer loyalty. The findings also showed that employee responsiveness and courtesy had a positive impact on customer evaluation of services received. The results further indicated that customer satisfaction had a positive impact on service recovery and customer loyalty which enhance positive word of mouth communication and repurchase behaviour. However, the study did not focus on the effect of value based CRM on customer satisfaction. This gap was addressed in this study.

Coelho and Henseler (2009) developed a model on effectiveness of service customization in different service industries using surveys of 1583 banking and 521 cable television customers’ data derived from 2005 ECSI results. The study used the
constructs; service customization, perceived quality, value, trust, customer satisfaction and loyalty. The study found that service customization increases perceived service quality, customer satisfaction, trust and ultimately customer loyalty. There was need to examine the effect of service value based CRM in a different banking contexts using primary data. This study addressed this gap by assessing the effect of value based CRM on customer satisfaction.

A study by Al-Hersh, Aburoub and Saaty (2014) examined the impact of CRM on customer satisfaction in the banking industry in the Kingdom of Saudi Arabia and Jordan. The study used questionnaires administered via e-mail to 500 respondents. The findings indicated a positive relationship between CRM dimensions of trust, commitment, empathy, communication, social bonding and fulfilling promises on customer satisfaction. The results further revealed different attitudes regarding the importance of CRM dimensions in relation to gender, age and educational level. The study focused on CRM in terms of constructs, but the current study examined the relationship between value based CRM, customer centred organizational configuration and technology based CRM and satisfaction.

2.3.2 Customer Centred Organizational Configuration and Satisfaction

The framework of entrenching CRM implementation within the organizational structure was suggested by Langerak and Verhof (2003) and Thakur (2006). Langerak and Verhof suggested that successful implementation of CRM involves aligning it with the business strategy, change in organizational culture, managerial support, realistic expectations and choice of appropriate software. Gronroos (2004), further argues that an organization and all its functions should be properly adapted according
to the needs and circumstances of its customers. This suggests that the ability of banks to adapt to the needs of its customers greatly depends on its customer centered organizational configuration. As argued by Sin et al., (2005) organizing business processes around CRM requires customer centred processes and functions as well as employees who are trained and committed to excellent customer service.

An empirical study on effective implementation of CRM was conducted by Day (2002) to establish the organizational configuration adapted by companies implementing CRM. The study interviewed 342 company managers via mail. The respondents were selected from public utilities, manufacturing, insurance, transportation finance, wholesale and retail trade as well as real estate companies. The findings of the study concluded that companies that were successful in CRM implementation had an organizational configuration that is customer centric and a structure that ensured seamless interaction with customers at all functional levels of the organization. Similarly, Day (2002) also found that organizations with high customer interaction are more likely to be organized by customer segments and have a companywide focus on the needs of the distinct customers. In addition, Liu (2007) suggests a four-strategic framework for effective CRM implementation that encompasses enterprise–wide management of channels, customer data and information technology. Hence, there was need to conduct a more recent study to examine whether these findings by Day (2002) and Liu (2007) are still valid in the Kenyan banking sector. Therefore, this study assessed the effect of customer centred organizational configuration on customer satisfaction.
Padmavathy, Balafi and Sivakumar (2012) developed a multi-item scale for measuring CRM effectiveness (CRME) in Indian retail banks. The study conveniently selected 197 bank customers to identify the CRME key dimensions while 261 customers validated the scale. The five indicators of CRME used in the study were reliability, organization commitment, technology application, customer experience and process driven approach to service delivery. The results indicated a positive relationship between reliability, process-driven approach, organizational commitment and customer satisfaction. The sample for the study was conveniently selected thus the need for a cross-sectional view because CRM is a dynamic process. The current study addressed this methodological gap by using multistage sampling technique to select respondents and employed a cross-sectional research design. This study assessed the effect of customer centric organizational configuration as opposed to process driven approach to CRM and its effect on customer satisfaction.

Shang and Lin (2010) examined the effectiveness of CRM as a people driven process in two car dealership and two telecom companies in Taiwan. The variables used in the study include customers’ involvement and their emotional needs, capability of employees’ and customer centred organizational culture. These factors were found to be statistically significant in people driven CRM processes. The study also indicated the significance of customer centred organizational culture in guiding employees to achieve CRM values. It further showed that organizations should employ internal coordination of functions and maintain a high level of customer centred business processes.
These findings are consistent with the observations of Parasuraman (1987) that customer oriented culture is a prerequisite for service firms to succeed in the market place. This is because organizational culture greatly affects the behaviour and productivity of employees. The study was carried out in two industries and cannot be generalized to all industries such as banking. The respondents were company managers and cannot provide accurate views of the customers’ emotional needs and involvement. This study addressed this gap by examining the effect of customer centred organization configuration on satisfaction of commercial banks account holders in Kenya.

Silver and Vegholm (2009) examined the role of customer adaptation in interaction and the bankers’ ability to meet the needs of their SME customers. The study involved 60 interviews of which 45 were conducted among SME customers and 15 from bank employees. The findings indicated that the adaptation process was affected by lack of communication and contact in the interaction process. The findings further revealed that knowledge, competence and orientation of bankers regarding customers’ specific needs as well as the centralized and standardized banking systems affect customer interaction. In addition, the study established that the organizational structure affects bankers’ perception and ability to interact with SMEs customers. The study involved 45 bank customers and these cannot adequately represent the entire banking sector customers, hence the need for an empirical study to fill this gap.

In addition, Mukerjee (2013) indicated that customer oriented organizations must develop suitable policies, set up appropriate structures and systems and also track the delivery of value to its customers. The organization should also maintain an inbuilt
culture that tracks quality service delivery, customer satisfaction and loyalty as well as continuous innovation, rewarding loyal customers and personalization in order to retain satisfied customers. This argument is reinforced by Bolton (2004), who further suggests that CRM should not only encompass change of organization culture and systems but a complete customer – centric business processing systems where all business processes and individuals focus on identifying and fulfilling customer needs and promises.

Osarenkhoe and Bennani (2007) examined the core components of CRM and its implementation strategy at a large Swedish firm. The data was collected from 29 key informants at the strategic and operational levels at SOS Alarm in Sweden. The study found that successful implementation of CRM requires coordinated cross-functional business processes, top management commitment, communication and customer centred employee orientation. The study further revealed that a customer driven CRM should emphasize on measuring customer satisfaction, managing service quality and maintaining interaction and contact with customers. However, the relationship between customer centric organization configuration and customer satisfaction was not revealed. The study also targeted 29 key informants in one sector which cannot adequately represent all industries. The current study addressed this gap by assessing the effect of customer centred organizational configuration on satisfaction.

Joybari and Brokharaeian (2013) examined the relationship between customer oriented organizational culture and customers’ satisfaction based on the dimensions of organizational participation, adaptability, compatibility and mission. The findings indicated existence of a positive and statistically significant relationship between
customer oriented organizational culture and customer satisfaction in Meli bank branches in Iran. This finding concurs with a study in the construction and automotive industries (Gillspie, Denso, Halaad & Neale, 2008). The study results indicated that organizational culture plays a significant role in customers’ satisfaction and the stronger the organizational culture; the more customers will be satisfied. The study ignored the effect of customer centred organization configuration on satisfaction. This gap was addressed in the current study.

Roy (2014) carried out a study on factors influencing CRM practice in selected commercial banks in India. The study involved 700 respondents selected among banks customers. The study variables were communication, customer belief, knowledge ability of employees, efficiency of banking services and employee attitude (independent variables); CRM was used as a moderating variable while service quality was a dependent variable. The demographic factors considered were age, gender, types of banks, and profession. The study found that communication, customer belief, knowledge ability of employees, efficiency of banking services and employee attitude significantly affected CRM and service quality. The study used CRM as a moderating variable while the current study used it as an independent variable and assessed its effect on customer satisfaction.

2.3.3 Technology Based CRM and Customer Satisfaction

The banking industry has always relied on technology to acquire process and deliver services to customers. The use of IT facilitates banks in processing of information, service differentiation and provides convenient, reliable and expedient services (Tan & Teo, 2000). In addition banks have also invested heavily in technological self-
service technologies (SST) such as ATMs, telephone, Debit and credit cards, home banking via telephone or personal computer which are convenient touch points for interaction between customers and their banks that are managed through personalized branch and technology enabled encounters (Siam, 2006). Jain, Jain and Dhar (2007) suggested that companies should select the right technology and install it in customer contact points. Similarly, Sin et al., (2005) proposed the use of up to date technology to enable organizations to develop computerized communications and technology aligned with business processes, higher quality service and better performance at customer contact points.

Roy and Ganguli (2011) examined the effect of generic technology based service quality dimensions on customer satisfaction among customers from different banks in the USA. The dimensions of technology based service quality used in the study were security information quality, convenience, ease of use, reliability and customer services. The study found that technology ease of use, its reliability and customer service have a positive and significant effect on customer satisfaction. The study further indicated that technology convenience and customer satisfaction have positive and significant effect on loyalty to the bank. However, the effect of technology based CRM on customer satisfaction in the context of a developing country was not established. The current study determined the effect of technology based CRM on satisfaction of commercial banks account holders.

Narteh (2014) examined the effect of perceived service quality on satisfaction with self-service technology (SST) in retail banking sector in Ghana. The study focused on automated teller machines (ATM) service quality dimensions and collected data from
530 ATM customers of 15 banks using a structured questionnaire. The study established that ease of use, reliability, responsiveness, fulfillment and convenience of services predicted customer satisfaction. This finding is in agreement with a position held by Khan (2010) who noted that ATM service quality is positively associated with satisfaction. However, ATM security and privacy did not have a significant effect on customer satisfaction. The study recommended further studies in other self-service technologies to enhance understanding of SST dimensions effect on customer satisfaction. This study was limited to ATM services while the current study assessed the effect of technology based CRM on satisfaction of account holders.

Salhieh, Doleh and Hjazi (2011) carried out a study to assess e-readiness of banks in Jordan to provide e-banking services. The study used the perception of bankers and customers to assess IT infrastructure support on e-banking readiness. Customer acceptance indicators used in the study were perceived ease of use, usefulness, privacy, enjoyment and security. Regarding IT infrastructure in the bank, the components considered were IT personnel and connectivity, functionality of application and compatibility. Data was gathered by use of questionnaires distributed; 60 questionnaires to bank managers, 30 to IT managers and 150 to customers.

The results of the study showed that e-banking has achieved a degree of operational and strategic importance and that customers are positive about embracing e-banking. The study proposed a framework to evaluate banks’ readiness for e-banking services. There was need to establish whether banks in Kenya exhibited e-readiness and determine the effect of technology based CRM on customer satisfaction.
Sadek and Tantawi (2009) examined the effect of customer focus CRM, CRM organization, knowledge and technology on customer satisfaction using a sample of 270 respondents from the Egyptian banking sector. The findings indicated that the selected banks apply value based CRM, CRM organization, knowledge management and technology based CRM. The study also established that the level of CRM implementation differs from one bank to another. The study also revealed a significant relationship between CRM and customer satisfaction when the four components are applied together. The study did not assess the effect of the individual CRM components on customer satisfaction. The current study however assessed the effect of technology based CRM on satisfaction of commercial banks account holders.

2.3.4 CRM, Demographic Characteristics and Customer Satisfaction

Demographic information enables researchers to obtain meaningful characteristics of a sample. These characteristics explain the differences in consumer behaviour and attitudes towards products and services (Narteh & Kuada, 2014; Elanian, 2003). There are a number of demographic variables, but this study will focus on age, gender and income. Studies have associated these variables with customer satisfaction with banking services.

Krishna, Moorthy and Anandavel (2014) assessed the effect of CRM on customer satisfaction with deposits, advances and related banking service in Theni District of Tamil Nadu in India using a sample of 429 customers drawn from 143 bank branches. The dimensions of CRM measured were trust, competence, commitment and customer experience and relationship quality. The results revealed a positive and significant relationship between CRM and customer satisfaction. In terms of customer profile variables, age and educational qualifications were significantly associated with
CRM dimensions. This study ignored the moderating role of demographic characteristics such as age, gender and income. The current study addressed this gap.

Dewan and Mahajan (2014) examined the moderating effect of demographic and situational factors on customer satisfaction in three branches of State Bank of India. The demographics factors considered were gender, occupation, age, education, marital status and income. The situational factors included number of years served by bank and frequency of visits made to the branch. The study established a significant difference in the satisfaction levels of different customers based on frequency of bank visits, occupation, gender and marital status. The study focused on direct relationship between variables. The current study assessed the moderating effect of demographic factors (age, gender, income) on the relationship between CRM and satisfaction in the Kenyan context.

Umarani, Saravanaraj and Mahalakshmi (2013) assessed the relationship between customer demographic variables on CRM in Tamil Nadu, India using a sample of 1040 bank customers. The study found a significant and positive relationship between demographic factors; age, gender, status in family, marital status, religion, monthly income, educational qualification, occupation, sector and customer satisfaction with relationship services offered by Indian banks. Similarly, Oyewole’s (2001) study on customer satisfaction with airline services reported that education, gender and occupation have a significant effect on satisfaction while household income and age had no significant effect on satisfaction with airline services. There was need to clarify this contradiction by examining the moderating effect of demographic factors on relationship between CRM and customer satisfaction in the Kenyan context.

Zulkifli and Tahir (2012) examined the effect of customers’ perceptions of CRM practice on use of online banking usage in Malaysia. A structured questionnaire was
administered to 93 bank customers. The results indicated insignificant differences in means between customers’ perceptions on CRM practices and education level, age, employment, gender and online banking usage. The finding suggested that customers’ perceptions of CRM practices are similar regardless of age, educational level, employment, gender and online banking services.

These findings concur with Palvia and Palvia (1999) who found age to be a significant determinant of satisfaction with Information Technology. Ogden and Ogden (2005) also observed that education level is a significant demographic factor because higher levels of education increase demand for quality products and services increase. However, there is need to replicate the study to establish whether the findings are similar in the Kenyan banking sector. Therefore, the current study used a semi-structured questionnaire to examine the moderating effect of demographic characteristics on the relationship between CRM and satisfaction.

2.3.5 CRM, Service Quality and Customer Satisfaction

The successful implementation of a CRM is affected by the company’s quality of service delivery. Service quality is an assessment of what customers perceive about their service encounter. The expectations-performance gap was elaborated by Parasuraman et al, (1988) who studied various US industries and developed the SERVQUAL model. This model quantified the service expectation-perception into five dimensions namely; tangibility, empathy, reliability, assurance and responsiveness. This study was based in the service sector and CRM implementation in the banking sector is heavily dependent on the quality of services delivered by employees.
Fasih and Khan (2014) assessed the effect of service quality on customer satisfaction and loyalty in the Pakistani banking sector. The study aimed at determining the satisfaction level of bank customers with the quality of the different services provided and their loyalty to their respective banks. Data was collected from 270 respondents selected from 20 conventional and 15 Islamic banks which had varying demographic features. The results revealed that all the service quality dimensions; empathy, tangibility, responsiveness, reliability and assurance had a positive and significant effect on customer satisfaction and loyalty. These findings are in line with existing literature (Bloemer, Reuyter & Peters 1998; Athanascopoulos, Gounaris & Stathakopoulos, 2001). Service quality is a competitive tool that differentiates organizations from competitors and helps organizations to satisfy their customers by consistently delivering quality products and services. This enhances customer satisfaction with services provided and loyalty to the organization (Naik, Gantasala & Prabhakar 2010; Zeithaml, 1988). The study assessed the direct relationship between variables, therefore a study is required to establish the moderating effect of service quality on CRM and satisfaction in the Kenyan context.

A study by Anastasiadon and Jamal (2009) examined the effect of service quality on customer satisfaction and loyalty among bank customers in Greece. The study also assessed the indirect and direct effect of expertise on customer loyalty. The study revealed that reliability, tangibility and empathy are positively related to customer satisfaction which in turn is positively related to loyalty. The study neither included CRM as an independent variable nor did it use service quality to moderate the relationship. Thus there is need for empirical study to assess the moderating effect of service quality on CRM and customer satisfaction.
A study by Kheng (2010), assessed the mediating effect of customer satisfaction on the relationship between service quality and customer loyalty. The respondents were 238 bank customers from Penanj, Malaysia. The study established that tangibility, empathy, assurance, responsiveness and reliability had a significant effect on customer loyalty. The results of the study established that customer satisfaction had a mediating effect on the relationship between service quality dimensions and customer loyalty.

As cited in Kheng (2010), the results of the study were found to be consistent with other studies such as Caruana (2002) and Eligie (2006) who established that electronic banking, bank image, and SST and service quality affect satisfaction of customers in the banking sector. This study did not focus on the mediating effect of service quality on CRM and customer satisfaction. The current study addressed this gap by examining the mediating effect of service quality on the relationship between CRM and customer satisfaction.

Narteh (2013) examined the determinants of student loyalty in the Ghanaian banking industry in Ghana. The study used service quality, bank image, student satisfaction and electronic banking as determinants of student loyalty to the banks. The study established that students’ loyalty to the bank was determined by their satisfaction with the perceived quality of banking services, image and availability of electronic services. However, the study did not establish a significant relationship between service quality and students satisfaction with banks.
The findings contradict Ishemoi (2007) and Katricioglu, Fethi, Ulcan and Dalci, (2011) who found that quality service was a major determinant of university students’ bank selection. However, Henning – Thurau, Gwinner and Gremler (2002) and Kumar, Mani and Vanjikovan (2010) found that service quality had a positive effect on customer satisfaction. This position supports Katricioglu et al., (2011) and Almossawi (2001) assertion that provision of e-banking services had a significant effect on student’s selection of banks. The study focused on students who cannot adequately represent the entire banking sector, thus further empirical research is needed to fill this gap. The study also did not determine the mediating effect of service quality on the relationship between CRM and satisfaction of commercial banks account holders. This gap was addressed in the current study.

Al-Azzam and Fattah (2015) evaluated the effect of service quality dimensions on customer satisfaction among Arab bank customers in Jordan. The dimensions of service quality included security, tangibility, reliability, responsiveness and empathy. The findings indicated that all the five dimensions of service quality have a positive effect on customer satisfaction. The findings support prior studies by Kheng, (2010) and Murugiah and Akgam (2015) who found a positive relationship between customer satisfaction and the five dimensions of service quality. The study confirmed that the five dimensions of service quality is an important tool for assessing the quality of services in the banking sector. However, the mediating effect of service quality on the relationship between CRM and customer satisfaction was not determined in the study. This gap was addressed in the current study.
From the literature reviewed, it is evident that previous scholars have studied the relationship between CRM, demographic characteristics, service quality and customer satisfaction independently. The literature reviewed alludes to this assertion. Therefore, this study examined the moderating effect of demographics characteristics and mediating effect of service quality on the relationship between CRM and customer satisfaction. The studies reviewed on CRM, demographics and service quality, show that the factors are related to customer satisfaction in isolation and not as integrated variables. This study used CRM, demographics and service quality in an integrated manner and examined their effect on satisfaction of commercial banks’ account holders in Nairobi City County, Kenya.

2.3.6 Summary of Literature Review and Knowledge Gaps

The literature reviewed indicates that existing research has limited focus on effect of CRM on customer satisfaction. The studies further showed that there is limited empirical research on the mediating effect of service quality and moderating effect of demographic characteristics on the relationship between CRM and satisfaction. Further, the different environmental contexts and the methodologies adopted limit the results to the local environments. Table (2.1) presents a summary of the empirical literature reviewed and some important research gaps that this study addressed.
<table>
<thead>
<tr>
<th>Authors and year</th>
<th>Focus of the study</th>
<th>Findings</th>
<th>Research gaps</th>
<th>Focus of the current study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parasuraman et al., (1988)</td>
<td>Service quality model</td>
<td>Developed the SERVQUAL model comprising: assurance, responsiveness, reliability, empathy and tangibility</td>
<td>The definition and judgments of quality differ among consumers across levels and environments.</td>
<td>This study adopted the five dimensions of service quality to assess the mediating effect of service quality on the relationship between CRM and satisfaction.</td>
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<tr>
<td>Langerak &amp; Verhoef (2003)</td>
<td>CRM strategy implementation</td>
<td>Implementation of CRM in line with business strategy, organizational structure change, managerial support, realistic expectations and choice of appropriate software</td>
<td>The study did not assess how these aspects of CRM affect customer satisfaction. There is need to carry out more recent study to establish if these findings are relevant in the Kenyan banking sector.</td>
<td>This study adopted some of these dimensions to assess the effect of customer centered organizational configuration on account holder satisfaction.</td>
</tr>
<tr>
<td>Sin et al., (2005)</td>
<td>CRM scale</td>
<td>Developed a scale for measuring successful implementation of CRM: Knowledge management, CRM organization, technology CRM and customer focus</td>
<td>Focused on developing a CRM scale and not the effect of these constructs on customers’ satisfaction with banking services.</td>
<td>This study used a modified version of these CRM dimensions to establish the effect of CRM on satisfaction of account holders in commercial banks.</td>
</tr>
<tr>
<td>Shang and Lin (2010)</td>
<td>Effectiveness of people driven CRM process in two car dealership and two telecom</td>
<td>Employee capabilities, customer oriented factors, their involvement</td>
<td>Study used case study approach, interviewed managers of the four case companies;</td>
<td>This study examined the effect of customer centered organizational</td>
</tr>
<tr>
<td>Study</td>
<td>Methodology</td>
<td>Findings</td>
<td></td>
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<tr>
<td>Companies in Taiwan and emotional needs were found to be statistically significant in people CRM driven process. Methodological gap revealed. The managers cannot provide accurate views on customers emotional needs and involvement configuration on customer satisfaction and addressed methodological gap by using multistage sampling.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kheng (2010)</td>
<td>Customer satisfaction, loyalty and service quality</td>
<td>Satisfaction had a mediating effect on relationship between service quality and customer loyalty. Focused on mediating effect of satisfaction on the relationship between service quality and customer loyalty.</td>
<td>This study focused on the mediating effect of service quality on the relationship between CRM and customer satisfaction</td>
<td></td>
</tr>
<tr>
<td>Halimi et al., (2011)</td>
<td>Evaluation of effect of personalized attention on customer loyalty</td>
<td>Study found that personalization of banking services, customer satisfaction and commitment enhance customer loyalty. The study was carried out in Sweden and results cannot be generalized to developing countries due to demographic and technological differences.</td>
<td>This study focused on effect value based CRM on customer satisfaction among consumers of commercial banking services.</td>
<td></td>
</tr>
<tr>
<td>Roy and Ganguli (2011)</td>
<td>Effect of technology based service quality dimensions on customer satisfaction and loyalty</td>
<td>Study found that reliability, customer service, convenience and ease of technology usage have significant and positive effect on satisfaction. The study was carried out in a developed state, replicate the study in a developing country such as Kenya due to contextual differences.</td>
<td>This study examined the effect of technology based CRM on satisfaction of commercial banks account holders.</td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>Study Title</td>
<td>Sample Size</td>
<td>Methodology/Findings</td>
<td>Generalization Notes</td>
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<tr>
<td>Padmanabhy, Balafi &amp; Sivakumar (2012)</td>
<td>Multi-scale for measuring CRM effectiveness (CRME) on customer satisfaction</td>
<td></td>
<td>A positive relationship between reliability, process driven CRM, commitment organizational and customer satisfaction.</td>
<td>Results cannot be replicated to other nations and industries because the sample was conveniently selected. Study offers a cross-section view but CRM is an ongoing process.</td>
</tr>
<tr>
<td>Djajanto et al; (2014)</td>
<td>Effect of self service Technology (SST) quality and CRM on customer satisfaction and loyalty</td>
<td></td>
<td>SST service quality and CRM had a significant effect on customer satisfaction.</td>
<td>Focused on direct effect of SST service quality and CRM on customer satisfaction.</td>
</tr>
<tr>
<td>Narteh (2014)</td>
<td>Perceived service quality and customer satisfaction of service technology.</td>
<td></td>
<td>Convenience, fulfillment, responsiveness, ease of use and reliability predicted customer satisfaction.</td>
<td>Study only focused on ATMs and did not examine effect of other technology based CRM on customer satisfaction.</td>
</tr>
<tr>
<td>Javed (2017)</td>
<td>Customer satisfaction and perceived value and mediation role of CRM on customer loyalty.</td>
<td></td>
<td>Customer satisfaction has a positive influence on perceived value and customer loyalty while CRM mediated the relationship.</td>
<td>Study involved respondents from hotel industry and results cannot be generalized because perception of value, CRM and satisfaction differs within different industries.</td>
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</table>

Source: Author (2016)
2.4 Conceptual Framework
The conceptual framework hypothesized that CRM directly affects customer satisfaction and is mediated by service quality while demographic factors moderate the relationship. The study assumed that customer satisfaction depends on the successful implementation of CRM and the quality of services offered. The framework also assumed that customer satisfaction varies across age groups, gender and income levels. The underlying arguments concerning the conceptual framework and hypotheses were informed by empirical and theoretical literature review. The conceptual framework in Figure 2.3 proposed that customer satisfaction was a function of CRM, service quality and demographic factors.
Based on conceptual framework and reviewed literature, customer satisfaction is the dependent variable which was measured in terms of positive experience with bank personnel, preference for services, bank image and accessibility. Customer relationship management was the independent variable whose measures were value based CRM, customer centred organizational configuration and technology based CRM. Therefore, the study proposed the following hypotheses and sub-hypotheses:

\( H_01 : \) Value based CRM has no effect on satisfaction of commercial banks’ account holders in Nairobi City County, Kenya.
**H₀₂:** Customer centred organizational configuration has no effect on satisfaction of commercial banks’ account holders in Nairobi City County, Kenya.

**H₀₃:** Technology based CRM has no effect on satisfaction of commercial banks’ account holders in Nairobi City County, Kenya.

**H₀₄:** Demographic characteristics have no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

Based on the fourth hypothesis, this study sought to determine the moderating effect of demographic characteristics on the relationship between CRM on satisfaction of commercial banks account holders. To achieve this objective, sub-hypotheses 4₁, 4ᵢᵢ and 4ᵢᵢᵢ were derived from hypothesis four.

**H₀₄(₁):** Age has no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

**H₀₄(ᵢᵢ):** Gender has no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

**H₀₄(ᵢᵢᵢ):** Income has no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

**H₀₅:** Service quality has no mediating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
This chapter presents the research philosophy and design, operationalization and measurement of study variables and target population. The chapter also outlines the data collection instrument and procedures, reliability and validity of the research instrument. Finally, the chapter describes the analytical models, diagnostic tests and ethical considerations.

3.2 Research Philosophy
A philosophical orientation helps the researcher to clarify the research design in terms of what evidence is to be gathered from what sources and how it will be interpreted to answer the research questions. This study was guided by positivistic research philosophy. The positivist approach assumes that the researcher is independent of what is being researched and that evaluation of phenomena is done using objective methodologies (Saunders, Lewis & Thornhill, 2009).

According to positivism philosophy, knowledge is valid if it is based on facts obtained through direct observation and measured empirically using quantitative techniques and statistical analysis (Saunders et al, 2009). In line with the positivist approach this study adopted a quantitative approach in examining the relationships between variables and formulated research hypotheses, tested them for their validation and subsequent generalization. A positivist approach was appropriate because the study used existing theory and methodology. The study focused on cause and effects of the variables and empirically analyzed the relationship between CRM and customer satisfaction by verifying the hypotheses through empirical tests.
3.3 Research Design

This study adopted both descriptive and explanatory research design which was cross-sectional in nature. According to Copper and Schindler (2003), cross-sectional research design aims to obtain accurate data from respondents at a specific point in time. Descriptive research design involves ‘what, when, where, why and how’ of consumers behaviour (Copper & Schindler, 2003). It provides an accurate description of predictions, narration of facts and characteristics of phenomena. This design also involves specifying objectives, data collection and analysis methods and determining relationships between the study variables. According to Saunders et al., (2009), the researcher should employ a descriptive approach prior to explanation of the phenomena.

On the other hand, explanatory research design was used to address the causal relationships between the variables in order to determine their significance. This research design is concerned with explanations of the nature of relationships between variables which is explained by hypothesis testing (Copper & Schindler, 2003). Explanatory research design was appropriate for this study because it sought to establish the relationship between CRM and satisfaction of commercial banks’ account holders in Nairobi County City in Kenya. This approach was recommended by Sproull (1995) as appropriate when studying attitudes, ideas and behaviour. The design conforms to the work of Thuo (2011); Maina (2014) and Mwencha (2015).

3.4. Empirical Model

The study used empirical models to test the statistical significance of the relationship between value based CRM, customer centred organization CRM, technology based
CRM, demographic characteristics and customer satisfaction. The study used multiple regression models to analyze the effect of independent variables on the dependent variable using the combined linear equation. The application of multiple regression models was to establish the line of best fit and the most accurate model for describing the relationship between the independent variables and dependent variable. The combined linear regression model for establishing the effect of multiple independent variables on dependent variable was stated as follows:

\[ CS = \beta_0 + \beta_1 VB + \beta_2 CC + \beta_3 TB + \epsilon \] ...

Where:

CS = Composite index of customer satisfaction

\( \beta_0 = \) constant

\( \beta_1, \beta_2, \beta_3 = \) Regression coefficients

VB = Value based CRM

CC = Customer centred organizational configuration

TB = Technology based CRM

\( \epsilon = \) Error term

**3.4.1. Moderation**

To assess the moderating effect of demographic characteristics (age, gender and income) on the relationship between CRM and customer satisfaction among account holders, the study used Baron and Kenny (1986) approach. The approach posits that the moderator effect is present if the interaction explains statistically a significant amount of variance between CRM and customer satisfaction. Since it is impossible to test the moderating effect of demographic characteristics as a composite index, each variable was tested separately. The multiple regression equations were stated as:
CS = $\beta_0 + \beta_1 CRM + \beta_2 A + \beta_3 CRM*A + \epsilon$ ………………………………………. (3.2)

CS = $\beta_0 + \beta_1 CRM + \beta_2 G + \beta_3 CRM*G + \epsilon$ ………………………………………. (3.3)

CS = $\beta_0 + \beta_1 CRM + \beta_2 I + \beta_3 CRM*I + \epsilon$ ………………………………………. (3.4)

Where:

CS = Customer satisfaction

$\beta_0$ = constant

$\beta_1, \beta_2, \beta_3$ = Regression coefficients

A= Age

G = Gender

I = Income

CRM = Composite index of Customer Relationship Management

CRM*A, CRM*G, CRM*I = Interaction terms

$\epsilon$ = Error term

The decision making criteria for moderation effect is indicated in Table 3.1.

**Table 3.1: Moderation Decision Criteria**

<table>
<thead>
<tr>
<th>Model</th>
<th>Model</th>
<th>Total effect</th>
<th>Conclusion</th>
</tr>
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<tbody>
<tr>
<td>3.2</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| $\beta_1$ is not significant  
P > 0.05 | - | - | No overall effect on moderator |
| $\beta_2$ is not significant  
P < 0.05 | $\beta_3$ is not significant  
P > 0.05 | - | Moderator is an independent variable |
| $\beta_2$ is significant  
P < 0.05 | $\beta_3$ is significant  
P < 0.05 | $\beta_3$ | Moderating variable has a moderating effect |

Source: Baron & Kenny (1986)

According to Baron and Kenny (1986), a moderator effect is present if the interaction effect explains statistically a significant amount of variance between CRM and customer satisfaction. The regression coefficient for the interaction term (beta) provides an estimate of the moderation effect. Moderation of the CRM and customer satisfaction relationship exists if beta is statistically different from zero.
3.4.2. Mediation

To test for statistical mediation effect of service quality on the relationship between CRM and CS, this study used the four steps causal path analysis by Baron and Kenny (1986). The approach is suitable due to its ability to assess linear effects of the relationship between variables and it is more robust than the product of coefficient approach proposed by Mackinnon and Fairchild (2009).

**Step 1:** Regression analysis with independent variable predicting dependent variable.

\[ CS = \beta_0 + \beta_1 \text{CRM} + \epsilon \]  \hspace{1cm} (3.5)

**Step 2:** Regression analysis with independent variable predicting mediating variable.

\[ SQ = \beta_0 + \beta_1 \text{CRM} + \epsilon \]  \hspace{1cm} (3.6)

**Step 3:** Regression analysis with mediating variable predicting dependent variable.

\[ CS = \beta_0 + \beta_1 SQ + \epsilon \]  \hspace{1cm} (3.7)

**Step 4:** Regression analysis with independent and mediating variables predicting dependent variable.

\[ CS = \beta_0 + \beta_1 \text{CRM} + \beta_2 SQ + \epsilon \]  \hspace{1cm} (3.8)

Where:

CS=Customer Satisfaction

\[ \beta_0 \] = Constant

\[ \beta_1, \beta_2 \] = Regression coefficients

CRM=Composite index of Customer Relationship Management

SQ = Composite index of Service Quality

\[ \epsilon \] = Error term
Testing for mediation required determining whether CRM (independent variable) is significantly related to CS (dependent variable) when there is a mediator (SQ). The purpose of steps 1-3 was to demonstrate that a relationship exists among variables and the coefficients are different from zero. If the relationship is non-significant in one or more of the conditions, then mediation is not likely. According to Baron and Kenny (1986), the relationship between CRM and CS is significantly reduced when controlling the effect of SQ and the largest mediation was demonstrated when the direct effect was Zero which indicated the presence of a mediator variable.

The data was compatible with the partial mediation hypothesis as the relationship between CRM and CS variables completely disappeared when SQ was controlled. Thus, all the effects of CRM passed through SQ and the coefficient was zero. The data did not support partial mediation hypothesis because the relationship between CRM and CS was significantly reduced when controlling SQ but did not completely disappear; hence part of the effect of CRM passed through SQ and the coefficient was greater than zero. The decision making criteria are presented in Table 3.2.

**Table 3.2: Mediation Decision Criteria**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 If $\beta_1$ in model 3.5 is significant. If $\beta_1$ in model 3.6 is significant. If $\beta_1$ is not significant &amp; $\beta_2$ in model 3.7 is significant.</td>
<td>Complete mediation</td>
</tr>
<tr>
<td>2 If $\beta_1$ in model 3.5 is significant. If $\beta_1$ in model 3.6 is significant. If $\beta_1$ in model 3.5 is significant and $\beta_1$ in model 3.6 is not significant while $\beta_2$ in model 3.7 is significant.</td>
<td>Partial mediation</td>
</tr>
<tr>
<td>3 If $\beta_1$ in model 3.5 is not significant. If $\beta_1$ in model 3.6 is not significant. If $\beta_1$ in model 3.5 is significant and equivalent to $\beta_1$ in model 3.6 and $\beta_2$ is not significant in model 3.7.</td>
<td>No mediation</td>
</tr>
</tbody>
</table>

Source: Baron & Kenny (1986)
3.5 Operationalization and Measurement of Variables

In the current study customer relationship management was the independent variable while customer satisfaction is the dependent variable. Service quality mediates the relationship between CRM and customer satisfaction. The study also included demographics as moderating variable in the relationship between CRM and customer satisfaction. Table 3.3 presents the measurement scale and operationalization of the key variables of the study.
Table 3.3: Operationalization of the Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicators</th>
<th>Operationalization</th>
<th>Measure</th>
<th>Question No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic characteristics (Moderating Variable)</td>
<td>Age, Gender, Income</td>
<td>Age group, Male/Female, Monthly income</td>
<td>Normal, Ordinal</td>
<td>Part I Question 1-8</td>
</tr>
<tr>
<td>Value based CRM (Independent variable)</td>
<td>Customized Products &amp; services, Personalized Communication, Customer complaint handling</td>
<td>Personalized services, 24hr customer service helpline, SMS, Adequate complaint resolution system</td>
<td>Five point likert rating scale, Modified version of Sin et al., (2005)</td>
<td>Part II Question 1-16</td>
</tr>
<tr>
<td>Technology based CRM (Independent variable)</td>
<td>Ease of use, Convenience Automated services, Access to information</td>
<td>User friendly, Convenient accessible ATMS, Dissemination of relevant information via ATMs, Email, website</td>
<td>Five point likert rating scale, Modified version of Sin et al., (2005)</td>
<td>Part II Question 1-17</td>
</tr>
<tr>
<td>Service quality (Mediating variable)</td>
<td>Tangibility, Reliability, Assurance, Empathy, Responsiveness</td>
<td>Appealing physical facilities, Accuracy of information, Staff willingness to help Prompt service delivery</td>
<td>Five point likert rating scale, Modified version of Parasuraman et al., (1998)</td>
<td>Part III Questions 1-23</td>
</tr>
</tbody>
</table>
3.6. Target Population

The study population was approximately 34,649,583 account holders from all commercial banks in Kenya (CBK, 2015) which were categorized as large, medium and small (CBK, 2015). Kenyan population of bank customers was equated to be the Nairobi City County bank account holders’ population because bank customers are spread within the country and can access services from any bank branch network. The distribution of accounts across different banks is shown in Table 3.4.
<table>
<thead>
<tr>
<th>Bank</th>
<th>Group</th>
<th>Account holders</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Bank of Africa Ltd</td>
<td>Large</td>
<td>12,933,945</td>
<td>37.33</td>
</tr>
<tr>
<td>Equity Bank Ltd</td>
<td>Large</td>
<td>8,780,150</td>
<td>25.34</td>
</tr>
<tr>
<td>Co-operative Bank of Kenya Ltd</td>
<td>Large</td>
<td>2,849,185</td>
<td>8.22</td>
</tr>
<tr>
<td>Kenya Commercial Bank Ltd</td>
<td>Large</td>
<td>3,794,579</td>
<td>10.95</td>
</tr>
<tr>
<td>Barclays Bank of Kenya Ltd</td>
<td>Large</td>
<td>1,502,421</td>
<td>4.34</td>
</tr>
<tr>
<td>Standard Chartered Bank Ltd</td>
<td>Large</td>
<td>217,832</td>
<td>0.63</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td></td>
<td><strong>30,078,112</strong></td>
<td><strong>86.81</strong></td>
</tr>
<tr>
<td>Family Bank Ltd</td>
<td>Medium</td>
<td>1,793,664</td>
<td>5.18</td>
</tr>
<tr>
<td>Diamond Trust Bank Kenya Ltd</td>
<td>Medium</td>
<td>655,543</td>
<td>1.89</td>
</tr>
<tr>
<td>National Bank of Kenya Ltd</td>
<td>Medium</td>
<td>695,392</td>
<td>2.01</td>
</tr>
<tr>
<td>CFC Stanbic Bank Ltd</td>
<td>Medium</td>
<td>134,301</td>
<td>0.39</td>
</tr>
<tr>
<td>I &amp; M Bank Ltd</td>
<td>Medium</td>
<td>98,918</td>
<td>0.29</td>
</tr>
<tr>
<td>NIC Bank Ltd</td>
<td>Medium</td>
<td>90,790</td>
<td>0.26</td>
</tr>
<tr>
<td>Housing Finance Ltd</td>
<td>Medium</td>
<td>74,409</td>
<td>0.21</td>
</tr>
<tr>
<td>Bank of Africa Kenya Ltd</td>
<td>Medium</td>
<td>82,464</td>
<td>0.24</td>
</tr>
<tr>
<td>Ecobank Ltd</td>
<td>Medium</td>
<td>39,380</td>
<td>0.11</td>
</tr>
<tr>
<td>Bank of Baroda Ltd</td>
<td>Medium</td>
<td>43,462</td>
<td>0.13</td>
</tr>
<tr>
<td>Prime Bank Ltd</td>
<td>Medium</td>
<td>24,292</td>
<td>0.07</td>
</tr>
<tr>
<td>Bank of India</td>
<td>Medium</td>
<td>16,374</td>
<td>0.05</td>
</tr>
<tr>
<td>Citi Bank</td>
<td>Medium</td>
<td>2,035</td>
<td>0.01</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td></td>
<td><strong>3,751,024</strong></td>
<td><strong>10.82</strong></td>
</tr>
<tr>
<td>Sidian Bank Ltd</td>
<td>Small</td>
<td>244,705</td>
<td>0.71</td>
</tr>
<tr>
<td>First Community Bank Ltd</td>
<td>Small</td>
<td>123,562</td>
<td>0.36</td>
</tr>
<tr>
<td>Jamii Bora Bank Ltd</td>
<td>Small</td>
<td>122,251</td>
<td>0.35</td>
</tr>
<tr>
<td>Gulf Africa Bank Ltd</td>
<td>Small</td>
<td>68,835</td>
<td>0.20</td>
</tr>
<tr>
<td>Consolidated Bank of Kenya Ltd</td>
<td>Small</td>
<td>49,098</td>
<td>0.14</td>
</tr>
<tr>
<td>Trans-National Bank Ltd</td>
<td>Small</td>
<td>55,655</td>
<td>0.16</td>
</tr>
<tr>
<td>African Banking Co-operation Ltd</td>
<td>Small</td>
<td>32,883</td>
<td>0.09</td>
</tr>
<tr>
<td>Charterhouse Bank Ltd</td>
<td>Small</td>
<td>4,821</td>
<td>0.01</td>
</tr>
<tr>
<td>Habib Bank A.G. Zurich</td>
<td>Small</td>
<td>5,592</td>
<td>0.02</td>
</tr>
<tr>
<td>Guaranty Trust Bank Ltd</td>
<td>Small</td>
<td>17,439</td>
<td>0.05</td>
</tr>
<tr>
<td>Credit Bank Ltd</td>
<td>Small</td>
<td>16,817</td>
<td>0.05</td>
</tr>
<tr>
<td>Guardian Bank Ltd</td>
<td>Small</td>
<td>10,462</td>
<td>0.03</td>
</tr>
<tr>
<td>Giro Commercial Bank Ltd</td>
<td>Small</td>
<td>8,281</td>
<td>0.02</td>
</tr>
<tr>
<td>Fidelity Commercial Bank</td>
<td>Small</td>
<td>8,975</td>
<td>0.03</td>
</tr>
<tr>
<td>Paramount Universal Bank Ltd</td>
<td>Small</td>
<td>8,560</td>
<td>0.02</td>
</tr>
<tr>
<td>Habib Bank Ltd</td>
<td>Small</td>
<td>3,992</td>
<td>0.01</td>
</tr>
<tr>
<td>UBA Bank Ltd</td>
<td>Small</td>
<td>5,593</td>
<td>0.02</td>
</tr>
<tr>
<td>Oriental Commercial Ltd</td>
<td>Small</td>
<td>4,842</td>
<td>0.01</td>
</tr>
<tr>
<td>Spire Bank Ltd</td>
<td>Small</td>
<td>20,705</td>
<td>0.06</td>
</tr>
<tr>
<td>Victoria Commercial Bank Ltd</td>
<td>Small</td>
<td>3,670</td>
<td>0.01</td>
</tr>
<tr>
<td>Middle East Bank Ltd</td>
<td>Small</td>
<td>1,803</td>
<td>0.01</td>
</tr>
<tr>
<td>Development Bank of Kenya Ltd</td>
<td>Small</td>
<td>1,904</td>
<td>0.01</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td></td>
<td><strong>820,447</strong></td>
<td><strong>2.37</strong></td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td></td>
<td><strong>34,649,583</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: CBK (2015)
3.7. Sample Size and Sampling Technique

A sample size of 400 was determined using Yamane (1967) formula for calculating the sample size from a finite population.

\[
n = \frac{N}{1 + N(e)^2}
\]

Where: \( n \) is the sample size
\( N \) is the population size and;
\( e \) is the allowed margin of error = 0.05 hence \( N=34,649,583 \)

\[
n = \frac{34,649,583}{1 + 34,649,583(0.05)^2} = 400
\]

Disproportionate stratified random sampling was used to select a sample size of 400 from a population of 34,649,583 commercial banks account holders. This sampling technique was applicable because most of the account holders were found in large banks which accounted for 86.81% of the account holders in Kenya. To employ this technique, the target population was divided into strata and samples were selected disproportionately from each stratum. Disproportionate stratified sampling helps to balance the strata size and variability to ensure fair representation of all strata (Gay, 1981; Kothari 2009; Borg & Gall 1989). Therefore, the stratum that exhibits more variability (large commercial banks) had more respondents (40%) while the strata that are almost homogeneous (small and medium banks) were sampled less (30% each) as illustrated in Table 3.5. Subsequently, systematic random sampling technique was applied in selecting the respondents from the various commercial banks. Simple random sampling was used in selection of the first respondent while systematic random sampling was applied in selection of the 5th account holder to enter the banking hall to fill the questionnaire.
Table 3.5: Determination of Sample Size

<table>
<thead>
<tr>
<th>Strata</th>
<th>No of Banks</th>
<th>Account Holders</th>
<th>Disproportionate % of population</th>
<th>Sample Allocation</th>
<th>Respondents per bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>6</td>
<td>30,078,112</td>
<td>40</td>
<td>160</td>
<td>26</td>
</tr>
<tr>
<td>Medium</td>
<td>13</td>
<td>3,751,024</td>
<td>30</td>
<td>120</td>
<td>9</td>
</tr>
<tr>
<td>Small</td>
<td>21</td>
<td>820,445</td>
<td>30</td>
<td>120</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>34,649,583</td>
<td>100</td>
<td>400</td>
<td></td>
</tr>
</tbody>
</table>

Source (Researcher 2016)

3.8 Data Collection Instrument

The study collected primary data from account holders of commercial banks in Nairobi headquarters branches. In the current study, a semi-structured questionnaire was used to collect primary data (Appendix I). The structured questions were appropriate because they take shorter time to fill, reduce variation and increase response rate (Kothari, 2004). A five point likert rating scale ranging from “not at all” to “a very large extent” was used. This scale has equal intervals where objects were arranged according to their magnitude and values cannot be comparable (Malhotra, Hall, Shaw & Oppenheim, 2002).

The questionnaire had four parts. The first part captured respondents’ background information while the second part had questions on value based CRM, customer centred organizational configuration and technology based CRM. The third section contained questions that assessed service quality while the fourth part focused on satisfaction of commercial banks account holders. The questionnaire was subject to reliability and validity tests.
3.9 Validity and Reliability of Data Collection Instrument

Validity and reliability in research reveals two things. First, with regard to reliability it confirms whether the results are replicable. Secondly, validity tests the suitability, accuracy and meaningfulness of the measurements. Measurement involving behaviours, opinions, and constructs are subject to errors that affect measurement of validity and reliability.

3.9.1 Validity of the Research Instrument

Validity is the degree to which a test measures what it was intended to measure (Kothari, 2004). The research instrument was reviewed to ascertain the content and face validity by a panel of five experts whose suggestions were used to improve the instrument. Construct validity was also done to evaluate validity of the instrument’s ability to actually measure the constructs being measured. In the current study, construct validity was measured through confirmatory factor analysis. Convergent validity refers to the degree to which the scale correlates in the same direction (converge) with other measures of the same constructs (Zikmund, 2000). The study ensured validity by measuring CRM and service quality variables using scales which have already been validated in prior studies (Parasuraman et al., 1988; Sin et al., 2005). The study conducted factor analysis on all the variables (Appendices IV-XII).

3.9.2: Reliability of the Research Instrument

Reliability of research instrument is the extent to which it produces consistent results on repeated trials and measures. It reflects the degree to which the test scores are free from measurement errors (Cooper & Schindler, 2003). Reliability of the instrument was determined by conducting a pilot test before the data collection exercise.
commenced. The test was conducted using a pilot sample of 20 account holders who were excluded from the main survey. The pilot study results enabled the researcher to assess the content, sequence, form and layout of questions and difficulties in comprehending the questions as recommended by Malhotra et al., (2002). The study also applied Cronbach’s alpha coefficient to check the reliability of the instrument which was recommended by Malhotra et al., (2002) as a standard measure of inter item consistency reliability. The value of Cronbach’s alpha varies from zero to one where zero means no internal consistency between items in the questionnaire while one implies perfect internal consistency (Cronbach & Hedge, 2001). The study used Cronbach’s alpha coefficient of 0.9, which is regarded as reliable as recommended by Field (2009). The study instrument reliability results are demonstrated in Table 3.6

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Based CRM</td>
<td>16</td>
<td>0.921</td>
</tr>
<tr>
<td>Customer Centred Organizational Configuration</td>
<td>18</td>
<td>0.927</td>
</tr>
<tr>
<td>Technology Based CRM</td>
<td>17</td>
<td>0.919</td>
</tr>
<tr>
<td>Service Quality</td>
<td>23</td>
<td>0.949</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>19</td>
<td>0.942</td>
</tr>
</tbody>
</table>

Source: Pilot study; Researcher (2016)

The results in Table 3.6 show that the instrument reliability results had a coefficient above 0.9. Service quality had the highest value of 0.949. This means that the research instrument was reliable and can be used to collect the required data.

3.10 Data Collection Procedure

The researcher obtained authorization to conduct the research from National Council of Science, Technology and Innovation (NACOSTI) (Appendix XIII & XIV). The researcher also obtained a verbal consent to carry out the study from the managers of the commercial banks and the officer in charge of education in Nairobi City County.
The questionnaires were administered by four research assistants to account holders systematically selected from those waiting to be served at the various commercial banks headquarters branches in Nairobi City County. This method of data collection increased response rate, allowed clarification and controlled the data collection process. Data collection was carried out between August 2016 and January 2017.

3.11 Data Analysis

3.11.1 Quantitative Data Analysis

Data analysis involved data cleaning and editing to detect erroneous and irrelevant data. It also involved analysis and reporting. Quantitative data were analyzed using both descriptive and inferential statistics in Statistical Package for Social Sciences (SPSS) version 19. Descriptive statistics included mean and standard deviation that were calculated to provide respondents profiles and study variables. Pearson’s Product Moment correlation ($R^2$) was computed to show the amount of variation in customer satisfaction (dependent variable) that is explained by independent variables. Simple and multiple linear regression analysis were carried out to establish the effect of independent variables on the dependent variable. However, stepwise multiple linear regression was used to ascertain the mediating and moderating effect of service quality and demographic characteristics on the relationship between CRM and customer satisfaction. The analytical models used for data analysis are depicted in Table 3.7.
### Table 3.7: Research Objectives, Hypotheses, Analytical Models and Interpretation

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Hypothesis</th>
<th>Analytical Models</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) To establish the effect of value based CRM on satisfaction of commercial banks account holders in Kenya.</td>
<td>H01: Value based CRM has no effect on satisfaction of commercial banks account holders in Kenya.</td>
<td>CS = β0 + β1 VB + ε Where: CS = Composite index for customer satisfaction β0 = Constant β1 = Beta coefficients VB = Value based CRM ε = Error Term</td>
<td>Adjusted R² Value F – Statistic Regression coefficients P- value &lt; 0.05</td>
</tr>
<tr>
<td>ii) To assess the effect of customer centered organizational configuration on satisfaction of commercial banks account holders in Kenya.</td>
<td>H02: Customer centered organizational configuration has no effect on satisfaction of commercial banks account holders in Kenya.</td>
<td>CS = β0 + β2 CC + ε Where: CS = Composite index for customer satisfaction β0 = Constant β2 = Beta coefficient CC = Customer centered organizational configuration ε = Error Term</td>
<td>Adjusted R² Value F – Statistic Regression coefficients P- value &lt; 0.05</td>
</tr>
<tr>
<td>iii) To examine the effect of technology based CRM on satisfaction of commercial banks account holders in Kenya.</td>
<td>H03: Technology based CRM has no effect on satisfaction of commercial banks account holders in Kenya.</td>
<td>CS = β0 + β1 TB + ε Where: CS = Composite index for customer satisfaction β0 = Constant β1 = Beta coefficients TB = Technology Based CRM ε = Error Term</td>
<td>Adjusted R² Value F – Statistic Regression coefficients P- value &lt; 0.05</td>
</tr>
<tr>
<td>iv) To assess the moderating effect of demographic characteristics on the relationship between CRM and satisfaction of commercial banks account holders in Kenya.</td>
<td>H04: Demographic factors have no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Kenya.</td>
<td>CS = β0 + β1 CRM + β2 A + β2 CRM + A + ε Where: CS = Customer satisfaction β0 = constant β1, β2, β3 = Regression coefficients CRM = Composite index for Customer Relationship Management CRM<em>A, CRM</em>G, CRM*I = Interaction terms ε = Error term</td>
<td>Change in adjusted R² value Change in F-value P-value &lt;0.05 Regression coefficients</td>
</tr>
<tr>
<td>v) To determine the mediating effect of service quality on the relationship between CRM and satisfaction of commercial banks account holders in Kenya.</td>
<td>H05: Service quality has no mediating effect on the relationship between CRM and satisfaction of commercial banks account holders in Kenya.</td>
<td>Regression model&lt;br&gt;(i) CS = β0 + β1 CRM + εi&lt;br&gt;(ii) SQ = β0 + β2 CRM + εi&lt;br&gt;(iii) CS = β0 + β1 SQ + εi&lt;br&gt;(iv) CS = β0 + β1 CRM + β2 SQ + εi Where: β0 = constant β1, β2 = regression coefficients CS = Composite index of customer satisfaction CRM = Composite index for CRM SQ = Composite index for service quality ε1 = Error term</td>
<td>Adjusted R² P-value &lt;0.05 Regression coefficients</td>
</tr>
</tbody>
</table>

Source: Researcher (2016)
3.11.2 Qualitative Data Analysis

The open ended questions were analyzed using content analysis which involved grouping of common themes together so that results can be more meaningful. The use of open ended questions in a study facilitate use of content analysis and enable respondents to bring out pertinent issues that cannot easily be captured using closed ended questions. To analyze the responses on qualitative responses data were grouped according to themes in order to further interpret the findings.

3.12 Diagnostic Tests

The current study used regression analysis to predict the relationship between variables. To achieve these objectives, major assumptions made included linearity, homoscedasticity (constant variance of errors), independence of errors (no serial correlation) and normality. Other tests performed were tests for multicollinearity, outliers, heteroscedasticity and autocorrelation.

3.12.1 Normality Test

Normality is a significant assumption in multivariate analysis. To test for normality both graphical and statistical tests are applied (Hair, Black, Babin, Anderson & Tatham, 2006). The graphical test involves graphical analysis that capture normality probability plot. The statistical tests include Kolmogorov-Smirnov or Shapiro Wilk (SW) tests that assess the degree of or departure from normality. This study used Kolmogov-Smirnov to test for normality at a significance level of P-value <0.05.
3.12.2 Linearity Test
The study tested the regression assumption of linearity of the relationship between independent and dependent variables. The coefficients show the strength and direction of the relationship where a positive value indicates a direct effect that causes an increase in the other variable. Negative values show an inverse relationship (Field, 2009). Analysis of variance test results reveal a linear relationship between variables when p-value of linearity is less than 5%.

3.12.3 Sample Adequacy Test
The adequacy of the sample was measured using Kaiser–Meyer-Olkin (KMO) test. The KMO ranges from 0 to 1 and the higher the value the more adequate the sample. This study used an index of 0.6 as recommended in Field (2005).

3.12.4 Confirmatory Factor Analysis
Confirmatory factor analysis is a multivariate statistical procedure for testing how well the measured variables represent the number of constructs. This study conducted confirmatory factor analysis using communalities and Eigen values. Eigen values indicate the relative importance of each factor in accounting for the variable analyzed. This analysis increases reliability of research instrument because not all the factors in a study are statistically important (Kothari, 2004). Communalities were used to show how much of each variable is accounted for by the underlying factors in totality where a high communality value show that not much of the variable is left over after the factors are taken into consideration. The study considered a loading of 0.5 appropriate as recommended by Rahim and Magna (2005).
3.12.5 Outliers Test

Cook’s Distance test for outliers was used to detect multiple outliers. According to Cook & Weisberg, (2006) outliers are present in the data set when Cook’s Distance ($D_i$) is $> 1$ while absence of outliers indicates a test statistic; $D_i < 1$. In this study $D_i$ was calculated as a mean value that indicated absence of outliers in the data set when $D_i < 1$.

3.12.6 Homoscedasticity Test

Homoscedasticity (homogeneity) of variance assumes that the error term or random disturbance in the relationship between independent and dependent variable is the same regardless of the values of the independent variable. To test for homoscedasticity, Levene test for equality of variance was conducted where a significance level of P-value of 0.05 indicated homogeneity of variance (Hair et al., 2006).

3.12.7 Multicollinearity Test

In multiple regression analysis, increase in correlation between predictor variables reduces the regression coefficients’ reliability to predict the outcome (Kothari, 2004). This study used the Variance Inflation Factor (VIF) to test for multicollinearity. The VIF shows how much of the coefficient estimate is being inflated by multicollinearity. A VIF of independent and dependent variable of $< 3$ indicate absence of multicollinearity while VIF of $> 3$ indicates existence of collinearity. When VIF is greater than 10, it signifies a serious problem of collinearity (Chris, 2008). Multicollinearity is a serious problem in multiple regressions because increase in collinearity result to increase in standard error of coefficients thus making them less trustworthy. This study tested for existence of collinearity using a tolerance value of $< 1$ and a VIF of 2.
3.12.8 Autocorrelation Test

Autocorrelation is an assumption of regression model that refers to the independence of error. Durbin Watson (DW) test statistic for autocorrelation was carried out to establish the independence of errors. The test varies between 0 and 4 where a value of 2 implies that the errors are uncorrelated while values greater than 3 indicate high correlation (Field, 2009). This study used a DW test statistic of 2 to assess independence of errors.

3.13: Ethical Considerations

The researcher observed ethic standards before, during and after data collection. In this study, the researcher focused on ethical guidelines relating to confidentiality and anonymity, informed consent and privacy of respondents. Confidentiality refers to the researchers’ ethical obligation to keep the respondents identity and responses private. A respondent has a right to have his identity remain anonymous (Kothari, 2004). Anonymity was guaranteed by presentation of the data in group form so that it does not reflect the individual responses. Informed consent requires that the respondents make a decision to participate or not to participate in the research. The researcher explained the possible benefits of the research to the respondents so that they could make an informed decision before they could fill the questionnaire.
CHAPTER FOUR
RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction
This chapter presents the findings and discussion of the research study in relation to the objectives and hypotheses of the study. It discusses the response rate, respondents’ demographic information and responses on the different sets of questions based on the study variables. This chapter also presents the results of the diagnostic and hypothesis tests as well as a discussion of the study findings. The chapter ends with a summary of the major study findings based on hypotheses test results.

4.2 Response Rate
The study collected data from 400 commercial bank account holders, out of which 336 were found to be suitable for further analysis. This constituted a response rate of 84%. According to Rogelburg and Stanton (2007), a response rate of 35% - 40% is appropriate for studies conducted at the organizational level and 50% for studies done at the individual level using survey design. Based on this criterion the response rate was appropriate for this study.

4.3 Respondents’ Demographic Characteristics
The demographic characteristics of interest to this study were age, gender and monthly income level. Other demographic information was the number of years respondents received services from respective banks and services sought. The frequency distribution and percentage of the respondents’ demographic information is shown in Table 4.1.
Table 4.1: Demographic Information

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>176</td>
<td>52.4</td>
</tr>
<tr>
<td>Female</td>
<td>160</td>
<td>47.6</td>
</tr>
<tr>
<td>Total</td>
<td>336</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-26</td>
<td>49</td>
<td>14.6</td>
</tr>
<tr>
<td>27-35</td>
<td>99</td>
<td>29.5</td>
</tr>
<tr>
<td>36-44</td>
<td>63</td>
<td>18.8</td>
</tr>
<tr>
<td>45-53</td>
<td>77</td>
<td>22.9</td>
</tr>
<tr>
<td>54-62</td>
<td>32</td>
<td>9.5</td>
</tr>
<tr>
<td>&gt;63</td>
<td>16</td>
<td>4.8</td>
</tr>
<tr>
<td>Total</td>
<td>336</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monthly income (Ksh.)</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10,000</td>
<td>24</td>
<td>7.1</td>
</tr>
<tr>
<td>10,000-30,000</td>
<td>69</td>
<td>20.5</td>
</tr>
<tr>
<td>31,000-50,000</td>
<td>72</td>
<td>21.4</td>
</tr>
<tr>
<td>51,000-70,000</td>
<td>69</td>
<td>20.5</td>
</tr>
<tr>
<td>71,000-100,000</td>
<td>53</td>
<td>15.8</td>
</tr>
<tr>
<td>&gt;100,000</td>
<td>48</td>
<td>14.3</td>
</tr>
<tr>
<td>Total</td>
<td>336</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duration served</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 Year</td>
<td>21</td>
<td>6.3</td>
</tr>
<tr>
<td>1-3 Years</td>
<td>65</td>
<td>19.3</td>
</tr>
<tr>
<td>3-5 Years</td>
<td>56</td>
<td>16.7</td>
</tr>
<tr>
<td>&gt;5 Years</td>
<td>194</td>
<td>57.7</td>
</tr>
<tr>
<td>Total</td>
<td>336</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accounts in other banks</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>239</td>
<td>71.1</td>
</tr>
<tr>
<td>No</td>
<td>97</td>
<td>28.9</td>
</tr>
<tr>
<td>Total</td>
<td>336</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Banking Services</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Withdrawal</td>
<td>321</td>
<td>95.5</td>
</tr>
<tr>
<td>Cash Deposit</td>
<td>277</td>
<td>82.4</td>
</tr>
<tr>
<td>Payment of Bills</td>
<td>130</td>
<td>38.7</td>
</tr>
<tr>
<td>Loans</td>
<td>176</td>
<td>52.3</td>
</tr>
<tr>
<td>Salary Processing</td>
<td>76</td>
<td>22.6</td>
</tr>
<tr>
<td>Fee payment</td>
<td>117</td>
<td>34.8</td>
</tr>
<tr>
<td>Bank Statement</td>
<td>215</td>
<td>63.9</td>
</tr>
<tr>
<td>Cheque services</td>
<td>82</td>
<td>24.4</td>
</tr>
<tr>
<td>Money transfer</td>
<td>57</td>
<td>16.9</td>
</tr>
<tr>
<td>Custodial services</td>
<td>38</td>
<td>11.3</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

As indicated in Table 4.1, there were more male than female respondents. This implies that there were more male customers accessing banking services as opposed
to their female counterparts. In terms of age, majority of the respondents were between 27-35 and 45-53 years while minorities were above 63 years as shown in Table 4.1. This implies that more youthful respondents participated in the study which reflects that those in the working age brackets opened bank accounts more than those in the retirement age brackets. With regard to respondents monthly income 20.5% , 21.4% and 20.5% earned between Ksh.11,000 -30,000, Ksh.31000-50,000, and Ksh.51,000-70,000 respectively while 7.1% earned below 10,000. This implies that respondents of all economic status require commercial banking services.

Further, 57.7% of the respondents indicated they had received banking services from their current banks for more than five years, 19.3% for 1-3 years and 16.7% for 3-5 while 4.8% had received services for less than one year. The findings also revealed that majority of the respondents (71.1%) had multiple accounts in different banks while 28.9% operated only one bank account. This implies that majority of the respondents had more than one bank account irrespective of the years served by the bank. This raises the question on the account holders’ satisfaction with commercial banking services. Opening multiple bank accounts implies that banks do not provide homogeneous services or their effectiveness differs, hence need for more accounts.

In addition, the results indicated that withdrawals (95.5%) and deposits (82.4%) were the most bought services while payment of bills (38.7%) and loans (46.4%) were moderately sought by the respondents. This implies that account holders buy diverse services from commercial banks. The high percentage of withdrawals could imply that the respondents were salary or business account holders. The least commercial banking services sought by respondents were custodial services and money transfer.
This suggests that respondents seek services from insurance companies that offer insurance facilities or telecommunication service providers such as Safaricom’s Mpesa. The number of respondents served by the respective commercial banks for more than five years was 57.7% which implied that they had sufficient experience to understand CRM practices in commercial banks. These findings support Maina (2014) who found that 98.1% of the respondents had bank accounts in different banks and that withdrawals, deposits and investments were the most sought banking services.

To predict existence of a relationship between demographic characteristics (age, gender and monthly income) and customer satisfaction, cross tabulations were carried out with reference to account holders’ satisfaction with commercial banking services. The cross tabulation results on age, gender, monthly income level and customer satisfaction are depicted in Table 4.2 (a-c).

**Table 4. 2(a): Cross Tabulation on Age and Customer Satisfaction**

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>Not at all</th>
<th>To a little extent</th>
<th>To a moderate extent</th>
<th>To a great extent</th>
<th>To a very great extent</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-26</td>
<td>0.0%</td>
<td>4.2%</td>
<td>39.5%</td>
<td>50.0%</td>
<td>6.3%</td>
<td>100%</td>
</tr>
<tr>
<td>27-35</td>
<td>0.0%</td>
<td>16.5%</td>
<td>53.6%</td>
<td>29.9%</td>
<td>0.0%</td>
<td>100%</td>
</tr>
<tr>
<td>36-44</td>
<td>3.2%</td>
<td>11.3%</td>
<td>45.2%</td>
<td>33.8%</td>
<td>6.5%</td>
<td>100%</td>
</tr>
<tr>
<td>45-53</td>
<td>0.0%</td>
<td>5.3%</td>
<td>40.7%</td>
<td>48.7%</td>
<td>5.3%</td>
<td>100%</td>
</tr>
<tr>
<td>54-62</td>
<td>0.0%</td>
<td>12.8%</td>
<td>45.2%</td>
<td>32.3%</td>
<td>9.7%</td>
<td>100%</td>
</tr>
<tr>
<td>&gt;63</td>
<td>0.0%</td>
<td>21.4%</td>
<td>42.9%</td>
<td>35.7%</td>
<td>0.0%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

Generally Table 4.2 (a) reveals that 3.2% of the respondents of 36-44 years were not satisfied with commercial banking services. However, the findings indicate that
respondents of all age categories were moderately satisfied as indicated by percentage scores close to 40%. The results further indicate that 50% of the respondents who were 18-26 years old were satisfied to a great extent while 53.6% of those who were 27-35 years were moderately satisfied. This shows that the level of satisfaction is higher among the more youthful commercial bank customers probably because they are more e-banking oriented hence satisfied with banking services. This level of satisfaction by the younger population as opposed to the old would probably be attributed to the fact that the young do not have a lot of transactions with banks or they have fewer needs so they could not find any fault or dissatisfaction. The old on the other hand are experienced business people, employees or parents who have children at school to provide for so they are in need of loans and other services. When their expectations are not fulfilled they become dissatisfied. Most probably the young (18-26 years) could be children of the old and are in or out of school and receive money from their parents through their accounts so they have limited transactions with commercial banks. The results concur with the findings by Zulkifli and Tahir (2012) that age affects customer satisfaction in the banking sector.

Table 4.2 (b) depicts the cross tabulation results on gender and account holder satisfaction with commercial banking services.

**Table 4.2 (b): Cross Tabulation on Gender and Customer Satisfaction**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Not at all</th>
<th>To a little extent</th>
<th>To a moderate extent</th>
<th>To a great extent</th>
<th>To a very great extent</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1.2%</td>
<td>11.7%</td>
<td>48.0%</td>
<td>36.8%</td>
<td>2.3%</td>
<td>100%</td>
</tr>
<tr>
<td>Female</td>
<td>0.0%</td>
<td>10.2%</td>
<td>43.3%</td>
<td>40.1%</td>
<td>4.3%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)
Results in Table 4.2 (b), indicate that 48% male and 43.3% female respondents were moderately satisfied with commercial banking services. The results further reveal that 36.8% males and 40.1% female respondents were satisfied to a great extent with banking services. However, respondents who were not satisfied were 1.2% for males and none for females while respondents who were most satisfied were 2.3% for males and 4.3% females. This implies that men as bread winners in patriarchal backgrounds have more financial responsibilities and needs hence they find services at the bank wanting especially with the changing economic environment. These findings imply that female account holders were more satisfied than the males. The findings are in agreement with Dewan and Mahajan (2014) who found that gender influenced customer satisfaction in banks.

Table 4.2 (c) indicates the cross tabulation results on monthly income level and account holder satisfaction with commercial banks services.

**Table 4.2(c): Cross Tabulation on Monthly Income Level and Customer Satisfaction**

<table>
<thead>
<tr>
<th>Income Level (Ksh.)</th>
<th>Not at all</th>
<th>To a Little Extent</th>
<th>To a Moderate Extent</th>
<th>To a Great Extent</th>
<th>To a very Great Extent</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10,000</td>
<td>0.00%</td>
<td>8.30%</td>
<td>33.30%</td>
<td>58.30%</td>
<td>0.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>10,000-30,000</td>
<td>0.00%</td>
<td>17.90%</td>
<td>43.30%</td>
<td>34.30%</td>
<td>4.50%</td>
<td>100.00%</td>
</tr>
<tr>
<td>31,000-50,000</td>
<td>1.40%</td>
<td>7.00%</td>
<td>52.10%</td>
<td>35.20%</td>
<td>4.20%</td>
<td>100.00%</td>
</tr>
<tr>
<td>51,000-70,000</td>
<td>1.50%</td>
<td>8.80%</td>
<td>45.60%</td>
<td>41.20%</td>
<td>2.90%</td>
<td>100.00%</td>
</tr>
<tr>
<td>71,000-100,000</td>
<td>0.00%</td>
<td>5.80%</td>
<td>51.90%</td>
<td>38.50%</td>
<td>3.80%</td>
<td>100.00%</td>
</tr>
<tr>
<td>&gt;100,000</td>
<td>0.00%</td>
<td>17.80%</td>
<td>40.00%</td>
<td>35.60%</td>
<td>6.70%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)
As indicated in Table 4.2 (c), there were no major differences between the respondents’ income and their satisfaction. However, the respondents with monthly income below 10,000 which was the lowest appear to be more satisfied while those who were dissatisfied were fewer; 1.4% and 1.5% for income level of Ksh. 31,000-50,000 and Ksh.51000-70,000 respectively. Those with lower income made fewer transactions with banks and had fewer expectations for banks to meet, compared to those with higher income levels.

**4.4 Descriptive Analysis of the Study Variables**

This section contains the analysis of responses for value based CRM, customer centred organizational configuration, technology based CRM, service quality and customer satisfaction variables. The descriptive statistics that summarize major characteristics of the study variables were mean, standard deviation and standard error.

**4.4.1. Value Based CRM**

The respondents were asked to rate on a five point rating scale the extent to which their banks focused on value based CRM. The means, standard deviations and standard error are presented in Table 4.3.
Table 4.3: Responses on Value Based CRM

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Std deviation</th>
<th>Std. Error*</th>
</tr>
</thead>
<tbody>
<tr>
<td>My bank uses SMS to inform me about transactions in my account.</td>
<td>3.80</td>
<td>1.350</td>
<td>.074</td>
</tr>
<tr>
<td>My bank provides personalized information whenever I seek for services.</td>
<td>3.57</td>
<td>1.023</td>
<td>.057</td>
</tr>
<tr>
<td>The banks’ transaction requirements are designed to suit different customer segments.</td>
<td>3.57</td>
<td>1.023</td>
<td>.057</td>
</tr>
<tr>
<td>My bank has developed services that meet my financial needs.</td>
<td>3.51</td>
<td>.904</td>
<td>.049</td>
</tr>
<tr>
<td>My bank always informs me about new services.</td>
<td>3.44</td>
<td>1.285</td>
<td>.071</td>
</tr>
<tr>
<td>The bank has a free customer service helpline for 24 hours.</td>
<td>3.37</td>
<td>1.416</td>
<td>.079</td>
</tr>
<tr>
<td>Bank employees consider my relationship with the bank as a priority.</td>
<td>3.36</td>
<td>1.171</td>
<td>.065</td>
</tr>
<tr>
<td>My bank is dependable in handling my service complaints.</td>
<td>3.34</td>
<td>1.081</td>
<td>.060</td>
</tr>
<tr>
<td>Complaints are addressed adequately.</td>
<td>3.31</td>
<td>1.118</td>
<td>.063</td>
</tr>
<tr>
<td>My bank makes quick responses to complaints.</td>
<td>3.29</td>
<td>1.102</td>
<td>.061</td>
</tr>
<tr>
<td>I enjoy a close relationship with my bank.</td>
<td>3.22</td>
<td>1.211</td>
<td>.067</td>
</tr>
<tr>
<td>My bank treats me as a business partner.</td>
<td>3.18</td>
<td>1.238</td>
<td>.068</td>
</tr>
<tr>
<td>My bank uses customer views to design products and services</td>
<td>3.06</td>
<td>1.181</td>
<td>.065</td>
</tr>
<tr>
<td>My bank has a service failure resolution system.</td>
<td>3.03</td>
<td>1.187</td>
<td>.066</td>
</tr>
<tr>
<td>My bank Communicates to me personally on policy changes.</td>
<td>2.67</td>
<td>1.400</td>
<td>.078</td>
</tr>
<tr>
<td>Aggregate mean score</td>
<td>3.31</td>
<td>1.180</td>
<td>.063</td>
</tr>
</tbody>
</table>

*Standard error is a measure of reliability and the smaller the Se the more reliable the results (Kothari, 2004).
Source: Survey Data (2017)

As shown in Table 4.3, the highest mean score of 3.80 and Se of .074 reveal that the respondents valued to a great extent the SMS they received from their banks. The respondents also valued to a great extent their banks personalized communication, suitability of transactions requirements and the ability of the banking services to meet financial needs with a mean score of 3.5, 3.57 and 3.51 respectively. This means that the respondents were to a great extent happy with personalized communication and services offered by their respective banks. However, the extent to which banks personalized policy changes through communication registered the
lowest mean score of 2.67. This indicates the conservative nature of the banking sector which resonates with their commitment to confidentiality of customer focused information. The aggregate mean score of value based CRM responses was 3.31 with a standard deviation of 1.180. This implies that commercial banks’ value based CRM was implemented to a moderate extent among commercial banks.

The findings contradict the assertion by Lindergreen and Antioco (2005) that personalized attention is critical in CRM implementation. Similarly, the findings do not support their argument that personalized communication had a negative effect on CRM. However, the findings support the argument by silver and Regholm (2009) who posited that lack of communication, knowledge and competence, interaction and poor orientation of bankers regarding customers’ specific financial needs affected the relationship between banks and their customers.

4.4.2 Customer Centred Organizational Configuration

To determine the level of customer centred organizational CRM, the respondents were asked rate on a scale of 1 to 5 their banks customer centered organizational configuration.

Where: 1 = Not at to all and 5 = To a very large extent. Their responses means, standard deviations and Se were computed and presented as shown in Table 4.4.
Table 4.4: Responses on Customer Centred Organizational Configuration

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Std deviation</th>
<th>Std. Error*</th>
</tr>
</thead>
<tbody>
<tr>
<td>The customer care desk is strategically placed to attract customers' attention.</td>
<td>3.89</td>
<td>1.002</td>
<td>0.055</td>
</tr>
<tr>
<td>The bank counters are well labeled to guide customers.</td>
<td>3.89</td>
<td>1.002</td>
<td>0.055</td>
</tr>
<tr>
<td>The banks’ branch networks make services accessible anywhere in the country.</td>
<td>3.84</td>
<td>1.110</td>
<td>0.061</td>
</tr>
<tr>
<td>The set up of the banking hall is customer friendly.</td>
<td>3.74</td>
<td>1.085</td>
<td>0.060</td>
</tr>
<tr>
<td>My bank has maintained counters for specific customer segments.</td>
<td>3.63</td>
<td>1.125</td>
<td>0.062</td>
</tr>
<tr>
<td>The entire bank structure is centred to promote account holder satisfaction with services offered.</td>
<td>3.59</td>
<td>0.994</td>
<td>0.055</td>
</tr>
<tr>
<td>All the banking processes are designed to enhance quality service delivery.</td>
<td>3.54</td>
<td>0.984</td>
<td>0.055</td>
</tr>
<tr>
<td>Employees in all departments can access up to date information collected by other departments.</td>
<td>3.49</td>
<td>0.945</td>
<td>0.052</td>
</tr>
<tr>
<td>Bank employees in all departments have adequate knowledge of all banking services.</td>
<td>3.48</td>
<td>1.061</td>
<td>0.058</td>
</tr>
<tr>
<td>My bank’s business processes focus on the account holder.</td>
<td>3.48</td>
<td>0.988</td>
<td>0.055</td>
</tr>
<tr>
<td>My bank’s service processes are designed to minimize time wastage.</td>
<td>3.45</td>
<td>1.180</td>
<td>0.065</td>
</tr>
<tr>
<td>Bank management has adopted an open door policy.</td>
<td>3.41</td>
<td>1.119</td>
<td>0.062</td>
</tr>
<tr>
<td>Bank layout enables bank staff and customers to interact freely in the banking hall.</td>
<td>3.41</td>
<td>1.108</td>
<td>0.061</td>
</tr>
<tr>
<td>My bank coordinates all departmental activities in order to enhance quality of customer experience.</td>
<td>3.36</td>
<td>1.014</td>
<td>0.056</td>
</tr>
<tr>
<td>Bank employees in all departments can guide customers on sound financial investments.</td>
<td>3.30</td>
<td>1.066</td>
<td>0.059</td>
</tr>
<tr>
<td>My bank requirements for financial services are easy to meet.</td>
<td>3.20</td>
<td>1.056</td>
<td>0.059</td>
</tr>
<tr>
<td>My bank has a counter for people living with disabilities.</td>
<td>2.22</td>
<td>1.385</td>
<td>0.076</td>
</tr>
<tr>
<td>Aggregate mean score</td>
<td>3.47</td>
<td>1.075</td>
<td>0.059</td>
</tr>
</tbody>
</table>

*Standard error is a measure of reliability and the smaller the SE the more reliable the results (Kothari, 2004).
Source: Survey Data (2017)

Results in Table 4.4 indicate that the strategic location of customer care desk and labeling of counters had the highest mean scores of 3.89 and standard deviation of 1.002 while availability of bank counters for disabled people had the lowest score of 2.22 (Sd =1.059). This implies that although respondents were comfortable with the banking hall organization, they agreed to a little extent with absence of counters for customers who had disabilities.
Further, access to management, coordination of activities, financial investment advisory services and ability to meet financial requirements were valued to a moderate extent with mean scores 3.41, 3.36, 3.30 and 320 respectively. The results also indicate that the aggregate mean score was 3.47. This implies that the respondents valued to a moderate extent the commercial banks business processes, coordination of functions and the ability of management and employees to focus on customer needs.

The results correspond with the argument by Shang and Lin (2010) that employees’ capabilities and customer centred processes were essential to people driven CRM processes. The findings further confirm the observation by Bolton (2004) that CRM should be based on complete customer centric business processes that focus on identifying and meeting customer needs. Further, Mukerjee (2013), argued that customer oriented organizations should develop appropriate policies and processes that track and deliver value to their customers, reward loyal customers and focus on identifying and fulfilling customer needs and promises.

4.4.4 Technology Based CRM

The respondents rated the various aspects of technology based CRM in terms of ease of use, convenience, automated services and access to information. The computed means and standard deviation for the responses are shown in Table 4.5.
Table 4.5: Responses on Technology Based CRM

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>Mean</th>
<th>Std deviation</th>
<th>Std. Error*</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can withdraw money from my bank account through my mobile phone.</td>
<td>4.08</td>
<td>1.113</td>
<td>.062</td>
</tr>
<tr>
<td>Automation of banking services makes it possible to access banking services</td>
<td>4.06</td>
<td>1.010</td>
<td>.056</td>
</tr>
<tr>
<td>Technology helps my bank to provide convenient operating hours.</td>
<td>4.03</td>
<td>.996</td>
<td>.055</td>
</tr>
<tr>
<td>My banks’ ATMs are conveniently located.</td>
<td>3.97</td>
<td>1.050</td>
<td>.059</td>
</tr>
<tr>
<td>My bank’s mobile banking is personalized.</td>
<td>3.88</td>
<td>1.159</td>
<td>.064</td>
</tr>
<tr>
<td>My banks’ ATM provides different range of services.</td>
<td>3.74</td>
<td>1.071</td>
<td>.059</td>
</tr>
<tr>
<td>Technology enables my bank to provide information on all my financial</td>
<td>3.72</td>
<td>1.065</td>
<td>.059</td>
</tr>
<tr>
<td>transactions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank documents (fliers, forms) are placed where customers can easily access</td>
<td>3.72</td>
<td>1.065</td>
<td>.059</td>
</tr>
<tr>
<td>them.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATM cards are compatible with other ATM platforms.</td>
<td>3.70</td>
<td>1.160</td>
<td>.064</td>
</tr>
<tr>
<td>Technology provided by my bank is user friendly.</td>
<td>3.70</td>
<td>1.019</td>
<td>.056</td>
</tr>
<tr>
<td>ATM waiting time is reasonable.</td>
<td>3.69</td>
<td>1.130</td>
<td>.063</td>
</tr>
<tr>
<td>I find it more convenient to use mobile banking than interacting with bank</td>
<td>3.69</td>
<td>1.146</td>
<td>.063</td>
</tr>
<tr>
<td>employees.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can easily obtain an accurate bank statement using my mobile phone.</td>
<td>3.64</td>
<td>1.239</td>
<td>.069</td>
</tr>
<tr>
<td>Employees at my bank have access to up to date customer information required</td>
<td>3.55</td>
<td>.981</td>
<td>.054</td>
</tr>
<tr>
<td>for managing customer transactions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My bank shares information on new services via my cell phone.</td>
<td>3.35</td>
<td>1.257</td>
<td>.070</td>
</tr>
<tr>
<td>I find it easy to access all information on my bank from its website.</td>
<td>3.24</td>
<td>1.325</td>
<td>.075</td>
</tr>
<tr>
<td>Aggregate mean score</td>
<td>3.74</td>
<td>1.113</td>
<td>.060</td>
</tr>
</tbody>
</table>

*Standard error is a measure of reliability and the smaller the Se, the more reliable the results* (Kothari, 2004).

Source: Survey data (2017)

As indicated in Table 4.5, mobile banking, 24 hour access and technology aided service convenience was highly favoured by the respondents with mean scores of 4.08, 4.06 and 4.03 respectively. On the other part, sharing of information on new services via mobile phone and access to information from the banks websites had the lowest mean scores of 3.35 and 3.24 respectively. This means that customers valued these services to a moderate extent and that banks information sharing with customers
was limited. The aggregate mean score for technology based CRM was 3.74. This implies that respondents were of the opinion that technology used by commercial banks such as automated services and mobile banking were easy to use, convenient and accessible. This shows that commercial banks in Kenya have advanced technology based CRM that is appropriate for quality service delivery. These results are in line with the assertion by Siam (2006) who posited that banks’ heavy investment on self-service technologies promote personalized services and interactions. These technology aided personalized services enhance customer satisfaction in the banking sector.

4.4.5 Service Quality

Service quality was the mediating variable and was assessed using five constructs namely; tangibility, reliability, assurance responsiveness and empathy. The respondents were asked to rate the service quality of commercial banks based on these attributes. The results are depicted in Table 4.6.
Table 4.6: Responses on Service Quality

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Std deviation</th>
<th>Std. Error*</th>
</tr>
</thead>
<tbody>
<tr>
<td>My bank uses modern equipment (computers, ATMS).</td>
<td>4.15</td>
<td>.958</td>
<td>.053</td>
</tr>
<tr>
<td>My bank upholds confidentiality in my transactions.</td>
<td>4.02</td>
<td>.936</td>
<td>.052</td>
</tr>
<tr>
<td>Employees at the bank are well groomed.</td>
<td>3.97</td>
<td>.860</td>
<td>.047</td>
</tr>
<tr>
<td>My bank provides adequate security for its customers within its premises.</td>
<td>3.86</td>
<td>.968</td>
<td>.054</td>
</tr>
<tr>
<td>All the information received from my bank is reliable.</td>
<td>3.75</td>
<td>.917</td>
<td>.050</td>
</tr>
<tr>
<td>Materials associated with bank services are visually appealing.</td>
<td>3.75</td>
<td>.917</td>
<td>.050</td>
</tr>
<tr>
<td>I feel safe doing all my financial transactions with my bank.</td>
<td>3.72</td>
<td>.996</td>
<td>.055</td>
</tr>
<tr>
<td>Bank employees are willing to pay attention to me whenever I make inquiries.</td>
<td>3.71</td>
<td>.918</td>
<td>.051</td>
</tr>
<tr>
<td>My bank provides convenient operating hours for all customers.</td>
<td>3.67</td>
<td>.992</td>
<td>.055</td>
</tr>
<tr>
<td>My bank performs services right the first time.</td>
<td>3.65</td>
<td>.909</td>
<td>.051</td>
</tr>
<tr>
<td>My bank’s physical facilities are visually appealing.</td>
<td>3.61</td>
<td>1.065</td>
<td>.059</td>
</tr>
<tr>
<td>My bank delivers error free account statements.</td>
<td>3.60</td>
<td>1.108</td>
<td>.061</td>
</tr>
<tr>
<td>The bank employees are consistently courteous to me.</td>
<td>3.59</td>
<td>.955</td>
<td>.053</td>
</tr>
<tr>
<td>The behaviours of bank employees always instill confidence in me.</td>
<td>3.57</td>
<td>.987</td>
<td>.055</td>
</tr>
<tr>
<td>My bank provides service requests as promised.</td>
<td>3.51</td>
<td>.931</td>
<td>.052</td>
</tr>
<tr>
<td>Bank employees have knowledge to answer all my questions.</td>
<td>3.51</td>
<td>.931</td>
<td>.052</td>
</tr>
<tr>
<td>My bank employees’ timely service delivery ensures customer expectations are met.</td>
<td>3.48</td>
<td>.913</td>
<td>.050</td>
</tr>
<tr>
<td>Bank employees are never too busy to quickly respond to my queries.</td>
<td>3.47</td>
<td>1.016</td>
<td>.057</td>
</tr>
<tr>
<td>Bank employees provide prompt services to customers.</td>
<td>3.44</td>
<td>1.064</td>
<td>.059</td>
</tr>
<tr>
<td>Bank employees rectify service failure immediately it occurs.</td>
<td>3.39</td>
<td>1.083</td>
<td>.060</td>
</tr>
<tr>
<td>Employees at my bank understand my specific financial needs.</td>
<td>3.35</td>
<td>1.047</td>
<td>.058</td>
</tr>
<tr>
<td>My bank cares about my personal financial problems.</td>
<td>3.07</td>
<td>1.238</td>
<td>.069</td>
</tr>
<tr>
<td>Aggregate mean score</td>
<td>3.63</td>
<td>.988</td>
<td>.055</td>
</tr>
</tbody>
</table>

*Standard error is a measure of reliability of results and the smaller the Se, the more reliable the results (Kothari, 2004).

Source: Survey Data (2017)
As depicted in Table 4.6, majority of the banks are using modern equipment as indicated by the highest mean score of 4.15. In addition, the banks maintain confidentiality of their customer transactions as shown by a mean score of 4.02 (Sd = 0.936). This implies that the respondents valued to a great extent their banks’ application of tangible modern equipment in service delivery as well as the assurance in financial transactions. However, the banks response to service failure, concern for the respondents’ financial needs and problems registered the lowest mean scores of 3.39, 3.35 and 3.07 respectively. Therefore, the banks level of responsiveness and empathy were moderately rated. The aggregate mean score for service quality was 3.63 with a standard deviation of 0.988. Hence most of the respondents were happy to a large extent with the quality of services received from their banks.

4.4.6 Customer Satisfaction

Customer satisfaction was the dependent variable. The study assessed the level of account holder satisfaction with banking services offered by their commercial banks. The respondents were asked to rate their level of satisfaction on a scale of 1 to 5 where 1 represents ‘not at all’ and 5 ‘to a very great extent’. The results are presented in Table 4.7.
Table 4.7: Responses on Customer Satisfaction

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am satisfied with the location of the banks service systems (ATMs, branches).</td>
<td>3.69</td>
<td>1.068</td>
<td>.059</td>
</tr>
<tr>
<td>I am satisfied with my bank personnel’s banking skills and knowledge.</td>
<td>3.63</td>
<td>.921</td>
<td>.051</td>
</tr>
<tr>
<td>My banks network (e.g. branches, ATMs, agents) make it accessible in the entire country.</td>
<td>3.63</td>
<td>.921</td>
<td>.051</td>
</tr>
<tr>
<td>I am satisfied with the variety of services offered by my bank.</td>
<td>3.61</td>
<td>.939</td>
<td>.053</td>
</tr>
<tr>
<td>I believe my bank will satisfy my future financial needs.</td>
<td>3.60</td>
<td>.953</td>
<td>.053</td>
</tr>
<tr>
<td>I am satisfied with my bank’s technology based CRM excellence.</td>
<td>3.58</td>
<td>.950</td>
<td>.053</td>
</tr>
<tr>
<td>Bank staff response to all my queries is excellent.</td>
<td>3.56</td>
<td>.924</td>
<td>.051</td>
</tr>
<tr>
<td>Bank personnel always understand and satisfy my financial needs.</td>
<td>3.45</td>
<td>1.029</td>
<td>.058</td>
</tr>
<tr>
<td>I am satisfied with media reports on my bank.</td>
<td>3.42</td>
<td>.980</td>
<td>.055</td>
</tr>
<tr>
<td>Am satisfied with the information I receive from my bank.</td>
<td>3.28</td>
<td>1.083</td>
<td>.060</td>
</tr>
<tr>
<td>Am satisfied with the banks social responsibility</td>
<td>3.12</td>
<td>1.299</td>
<td>.073</td>
</tr>
<tr>
<td>I am satisfied with the service processes at my bank.</td>
<td>3.00</td>
<td>1.140</td>
<td>.064</td>
</tr>
<tr>
<td>I am satisfied with the queuing time at my bank.</td>
<td>2.71</td>
<td>1.298</td>
<td>.073</td>
</tr>
<tr>
<td>I am satisfied with the bank service charges.</td>
<td>2.63</td>
<td>1.215</td>
<td>.068</td>
</tr>
<tr>
<td>I am satisfied with the interest rates charged by my bank.</td>
<td>2.61</td>
<td>1.332</td>
<td>.074</td>
</tr>
<tr>
<td><strong>Aggregate mean score</strong></td>
<td>3.35</td>
<td>1.051</td>
<td>.056</td>
</tr>
</tbody>
</table>

*Standard error is a measure of reliability of results and the smaller the Se, the more reliable the results (Kothari, 2004).*

Source: Survey Data (2017)

Research findings in Table 4.7 indicate that the respondents were satisfied with the image of their banks as indicated by a mean score of 3.75. This implies that respondents have a sense of trust and confidence with their banks. However, results also show that the respondents were satisfied to a little extent with queuing for services, bank charges and interest rates which had mean scores of 2.71, 2.63 and 2.61 respectively. This implies that the level of customers’ satisfaction with banking services is relatively below customer expectations in aspects such as interest on loans, service charges and queuing time. The aggregate mean score for customer satisfaction
was 3.35 and a standard deviation of 1.051. This suggests that the respondents were to a moderate extent satisfied with banking services. These findings are in agreement with Navarro (2005) who asserted that customer satisfaction is affected by service quality as an outcome of a consumers experience with a product or service.

4.4.7: Summary of Aggregate Mean Scores

Table 4.8 presents the results of the aggregate mean scores of value based CRM, customer centred organizational configuration, technology based CRM and the composite mean score index of CRM.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Aggregate Mean Score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Based CRM</td>
<td>3.31</td>
<td>1.180</td>
</tr>
<tr>
<td>Customer Centred Organizational Configuration</td>
<td>3.47</td>
<td>1.075</td>
</tr>
<tr>
<td>Technology Based CRM</td>
<td>3.74</td>
<td>1.113</td>
</tr>
<tr>
<td>Service Quality</td>
<td>3.63</td>
<td>0.988</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>3.35</td>
<td>1.051</td>
</tr>
<tr>
<td>Composite Mean score of CRM</td>
<td>3.51</td>
<td>1.116</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

The pertinent results in Table 4.8 indicate that Technology based CRM had the highest aggregate mean score of 3.74. This implies that it had the highest effect on satisfaction of commercial banks account holders in Nairobi City County, Kenya. The findings also indicate that value based CRM had the lowest mean score of 3.31 which implies that commercial banks value based CRM was moderately implemented.

4.5: Qualitative Data Analysis

The respondents were requested to make additional comments on value based CRM, customer centred organizational configuration, technology based CRM, service quality and satisfaction with regard to the services they receive from their banks. This qualitative data was analyzed based on these themes.
4.5.1 Theme One: Value Based CRM

The findings revealed that the respondents preferred their banks to constantly communicate with them, respond quickly to complaints and treat them as important business partners. They also suggested that their banks should develop social programmes that enhance their relationship with customers as well as understanding their specific financial needs. However, the banks did not bond well with their customers and hence the need to devise strategies to cultivate strong relationships with their customers in order to boost customer satisfaction. The following were some of the outstanding comments from the respondents: “I have been a customer all my life and my bank should treat me as a partner”; “As a shareholder, my bank should communicate with me on all policy changes and provide financial services that I seek from other banks”; and “I want to feel close to my bank”. These findings validate the argument by Silver and Regholm (2009) who pointed out that lack of communication, knowledge and competence, contact in interaction and poor orientation of bankers regarding customers’ specific financial needs affected the relationship between banks and their customers.

4.5.2 Theme Two: Customer Centred Organizational Configuration

The recommendations on customer centred organizational configuration of the banks indicated diverse views from the respondents. The respondents suggested that commercial banks should make their banking halls more comfortable by rebranding, providing sufficient seats, washrooms and avoiding overcrowding inside the banking halls. The respondents also recommended increased number of tellers and ATMs to reduce queuing time, faster loan processing, use of less technical application forms as well as increased branch networks in estates. In addition, some notable
recommendations of the respondents were: “My bank should introduce agency banking in my estate so that I can deposit and withdraw money instead of travelling to the city”.

Respondents were also of the view that parking space was inadequate and that security should be provided within and outside the banking halls. As stated by one respondent; “I need to park my car safely near the bank and make transactions without fear; “The bank should provide adequate and secure parking space”. Regarding the business processes, one respondent stated; “It takes too long to process loans” while another respondent argued that; “Bank personnel do not understand all the business procedures so they always refer me to other officers instead of addressing the issues at one point”. Several respondents stated; “I have no time to waste queuing”; “I do not like a congested banking hall” and “why can’t the bank provide seats so that I can wait while seated”.

These suggestions point out the need for commercial banks to provide adequate security, improve the loan process, train staff and decongest the banking hall by ensuring service efficiency as well as providing seats for customers. The findings are in agreement with Osarenkhoe and Bennani (2009) who established that successful implementation of CRM requires a systematic and cross-functional business processes, customer oriented staff training, maintaining service quality and interaction with customers. The findings do not support Khan (2010) assertion that privacy and security were not significant predictors of customer satisfaction.
4.5.3 Theme Three: Technology Based CRM

The findings on technology based CRM revealed that the respondents were generally comfortable with the technology used by their banks in service delivery. However, they expressed the need for training on use of mobile banking. The respondents also expressed fear over use of mobile and agency banking services. These points were emphasized by a respondent who emphasized that; “I need to be trained how to deposit, withdraw and send money using my cell phone”; while other respondents stated; “I do not trust agency and mobile banking service providers”.

The respondents also suggested that banks should use ATMs for advertising new products, providing free account statements and disseminating of information especially on policy changes. These views were echoed by respondents who stated; “My bank should make it possible for me to receive information and carry out all transactions using the ATM”. However, other respondents expressed their inability to use the technology applied by banks as remarked by one respondent; “These machines are too complicated to use”; “Am used to being served by bank staff”. Therefore, commercial banks should create awareness in order to demystify technology aided banking services and to build trust among account holders. These results support Jain et al., (2007) who suggested that companies should appropriate technology in all customer service points. In addition, Sin et al., (2005) proposed the up to date technologies should be used in customer service contact points.

4.5.4 Theme Four: Service Quality

The study also identified several recommendations for improving service quality in commercial banks. The respondents suggested that bank personnel should deliver services within the time they promise, increase service speed by having more
efficient, friendly and experienced staff. Respondents also suggested that banks should extend their working hours, communicate when ATMs are faulty and make their banking halls more appealing and comfortable.

A respondent made these recommendations: “Ensure loans are disbursed as promised, ATMs are always functioning, avoid long queues, respond to issues quickly and make the banking hall comfortable and attractive”. A shareholder made the following recommendation; “I need reassurance that my money is safe”. This was supported by a businessman who suggested “My bank should extend working hours from 7 A.M to 6 P.M every day”, banks should extend their service hours to ensure customers can access services. These suggestions further show that account holders expect their banks to respond to complaints quickly, extend working hours, deliver services efficiently and ensure their savings are secure.

4.5.5 Theme Five: Customer Satisfaction

An analysis of the responses on customer satisfaction indicated that majority of the respondents recommended disclosure and reduction of interest rates on loans and service charges as well as increased interest rates on their deposits. As remarked by one respondent; “Am dissatisfied with the interest I receive for my fixed deposit which is lower than the interest charged on my loan”. The respondents also suggested that their banks should focus on identifying customer needs and fulfilling their promises by providing quality and timely services. One respondent expressed her dissatisfaction with receiving of deposits; “Am unhappy with the speed at which customers are served yet there are counters without cashiers”, which shows that banks are understaffed or they are indifferent to account holders satisfaction with their services.
Most of the respondents recommended immediate rectification of service failure and reassurance of safety of customer deposits through regular interactions and information sharing. In addition, respondents wanted their banks to introduce simplified account statements and loan application forms. As recommended by one respondent; “The bank statement should be prepared in a simple language”. Another respondent suggested; “Banks should simplify account statements and loan application forms by use of Kiswahili”. Respondents also suggested that banks should have polite, friendly, trusted and experienced staff that can also provide financial and other business consultancy services. This was echoed by a recommendation by a respondent that; “The bank should employ qualified officers who can handle all banking issues in a professional manner”. This indicates that banks should provide relevant training for their staff so that they have the required skills to efficiently deliver all services required by account holders. In addition, Musriha (2012) argued that banks service environment and employee communication positively affected customer satisfaction. Similarly, Al-Harsh et al (2014) suggested that CRM constructs such as trust, commitment, communication, social bonding and fulfilling promises enhance customer satisfaction.

4.6 Inferential Statistics Analysis
This section presents the results of the hypothesis tests conducted to determine the effect of value based CRM, customer centred organizational configuration and technology based CRM on account holders’ satisfaction with commercial banking services. The results of the moderating and mediating variables on the relationship between CRM and satisfaction are also presented. To test the respective hypotheses both simple and multiple linear regression analysis was conducted at 5% significance
level. This section also discusses several assumptions of multiple linear regression as recommended by Gupta (2005). The following diagnostic tests were done including tests of normality, sample adequacy, linearity, homogeneity, autocorrelation, multicollinearity, outliers and confirmatory factor analysis.

**4.6.1 Test for Normality**

To test for normality, the study applied Kolmogorov-Smirnov test. The normality test results are shown in Table 4.9.

<table>
<thead>
<tr>
<th>Table 4.9: Test for Normality Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameters, b</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.
b. Calculated from data.

Source: Survey Data (2017)

Table 4.9 shows that all the study variables were normally distributed with P-values greater than 0.05 as posited by Sekaran (2003). These include value based CRM (1.356>0.05); customer centred organizational configuration (0.879>0.05); technology based CRM (1.432>0.05); service quality (0.888>0.05) and customer satisfaction (0.929>0.05). The P-value for all variables were greater than 0.05 thus the data was normally distributed and appropriate for further analysis as advocated by Sekaran (2003).
4.6.2 Outliers Test

To detect multiple outliers the study used Cook’s Distance test (Cook & Weisbeerg, 2006). The results are shown in Table 4.10. Results in Table 4.10 indicate that the Cook’s Distance ($D_i$) values were $>1$ so there were no outliers in all the variables of this study.

Table 4.10: Test for Outliers

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>Sample</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cook's Distance</td>
<td>336</td>
<td>.0000</td>
<td>.4069</td>
<td>.0287</td>
<td>.3491</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

4.6.3 Test for Linearity

Linear relationship between the independent and dependent variables were tested using Analysis of Variance (ANOVA). The ANOVA results are indicated in Table 4.11.
Table 4.11: Linearity Test Results

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer Satisfaction * Value Based CRM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups (Combined)</td>
<td>96.400</td>
<td>101</td>
<td>.954</td>
<td>2.923</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Linearity</strong></td>
<td><strong>69.540</strong></td>
<td>1</td>
<td><strong>69.540</strong></td>
<td><strong>212.987</strong></td>
<td>.000</td>
</tr>
<tr>
<td>Deviation from Linearity</td>
<td>26.860</td>
<td>100</td>
<td>.269</td>
<td>.823</td>
<td>.867</td>
</tr>
<tr>
<td><strong>Within Groups</strong></td>
<td>73.789</td>
<td>226</td>
<td>.326</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>170.189</td>
<td>327</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer Satisfaction * Customer Centred Organizational Configuration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups (Combined)</td>
<td>108.479</td>
<td>10</td>
<td>1.043</td>
<td>3.769</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Linearity</strong></td>
<td><strong>81.406</strong></td>
<td>1</td>
<td><strong>81.406</strong></td>
<td><strong>294.17</strong></td>
<td>.000</td>
</tr>
<tr>
<td>Deviation from Linearity</td>
<td>27.073</td>
<td>10</td>
<td>.263</td>
<td>.950</td>
<td>.612</td>
</tr>
<tr>
<td><strong>Within Groups</strong></td>
<td>61.710</td>
<td>22</td>
<td>.277</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>170.189</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer Satisfaction * Technology Based CRM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups (Combined)</td>
<td>98.621</td>
<td>91</td>
<td>1.084</td>
<td>3.</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Linearity</strong></td>
<td><strong>74.684</strong></td>
<td>1</td>
<td><strong>74.684</strong></td>
<td><strong>24</strong></td>
<td>.000</td>
</tr>
<tr>
<td>Deviation from Linearity</td>
<td>23.937</td>
<td>90</td>
<td>.266</td>
<td>.8</td>
<td>.761</td>
</tr>
<tr>
<td><strong>Within Groups</strong></td>
<td>71.219</td>
<td>23</td>
<td>.303</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>169.83</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey data (2017)

The test results in Table 4.11 were statistically significant at P-value <0.05. The relationship between value based CRM, technology based CRM and customer satisfaction yielded linearity significance of 0.000 for all the variables. The results revealed that a linear relationship existed between value based CRM, customer centered organizational configuration, technology based CRM and customer satisfaction. Therefore, the results justified the application of multiple linear regression to test relationships between the variables as recommended by Gupta (2005).
4.6.4 Test for Sample Adequacy

To test for sample size adequacy the study used Kaiser Meyer-Olkin test (KMO). This is an index which justifies suitability of factor analysis and ranges from 0 to 1. This study used an index of 0.6 as recommended by Field (2009). The KMO test results are presented in Table 4.12.

Table 4.12: Kaiser Meyer-Olkin (KMO) Test Results

<table>
<thead>
<tr>
<th>Value Based CRM</th>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>0.621</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Approx. Chi-Square</td>
<td>170.98</td>
</tr>
<tr>
<td>Customer Centred Organizational Configuration</td>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
<td>0.654</td>
</tr>
<tr>
<td></td>
<td>Approx. Chi-Square</td>
<td>211.81</td>
</tr>
<tr>
<td>Technology Based CRM</td>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
<td>0.701</td>
</tr>
<tr>
<td></td>
<td>Approx. Chi-Square</td>
<td>187.995</td>
</tr>
<tr>
<td>Service Quality</td>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
<td>0.622</td>
</tr>
<tr>
<td></td>
<td>Approx. Chi-Square</td>
<td>413.621</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
<td>0.679</td>
</tr>
<tr>
<td></td>
<td>Approx. Chi-Square</td>
<td>633.34</td>
</tr>
<tr>
<td>Demographic characteristics</td>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Approx. Chi-Square</td>
<td>0.024</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

The KMO results in Table 4.12 were greater than 0.5 for all the variables. Therefore, the results justify that the sample is adequate for analysis and a representation of the study population. This implies that results from the sample of commercial banks account holders in Nairobi City County in Kenya can be generalized.

4.6.5 Confirmatory Factor Analysis

To increase the validity of the instrument, the study conducted a confirmatory factor analysis (CFA). The use of factor analysis determined the importance of the variables in relation to the factor and helped to identify the extent to which the variables
addressed the objectives of the study which cannot be detected through direct data analysis. The values established the specific items that measure the study variables by avoiding highly correlated variables. The results indicated a total variability of 62.3%, 54% and 64% for value based CRM, customer centred configuration and technology based CRM respectively. Therefore, all the variables were used in the study. Factor analysis results are shown in Appendices III-XII.

4.6.6 Test for Homogeneity

The study used Levene test to assess homogeneity of variance of independent variables. The test results are indicated in Table 4.13.

Table 4. 13: Homogeneity Test Results

<table>
<thead>
<tr>
<th>Customer Satisfaction</th>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Based CRM</td>
<td>4.542</td>
<td>4</td>
<td>323</td>
<td>.001</td>
</tr>
<tr>
<td>Customer Centred Organizational Configuration</td>
<td>4.005</td>
<td>4</td>
<td>323</td>
<td>.003</td>
</tr>
<tr>
<td>Technology Based CRM</td>
<td>6.700</td>
<td>3</td>
<td>322</td>
<td>.000</td>
</tr>
<tr>
<td>Service Quality</td>
<td>10.394</td>
<td>4</td>
<td>323</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

The Levene test results in Table 4.13 indicate that all the variances were significant at P<0.05. Therefore, the assumption of homogeneity of variance justified the appropriateness of the use of multiple linear regression analysis.

4.6.7 Autocorrelation Test

To assess autocorrelation between variables, the study applied Durbin Watson (DW) test statistic which ranges from 0 to 4. According to Field (2009), a test statistic of 4 means that the residues are highly correlated while 0 value reflects a situation where residues are uncorrelated. The study results for autocorrelation test are depicted in Table 4.14.
Table 4.14: Autocorrelation Test Results

<table>
<thead>
<tr>
<th>Predictor</th>
<th>R</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>Se</th>
<th>DW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant, value based CRM</td>
<td>0.639</td>
<td>0.409</td>
<td>0.407</td>
<td>0.556</td>
<td>2.057</td>
</tr>
<tr>
<td>Constant, Customer Centred Organizational Configuration</td>
<td>0.692</td>
<td>0.478</td>
<td>0.477</td>
<td>0.522</td>
<td>2.1</td>
</tr>
<tr>
<td>Constant, Technology based CRM</td>
<td>0.663</td>
<td>0.44</td>
<td>0.438</td>
<td>0.541</td>
<td>2.03</td>
</tr>
<tr>
<td>Constant, value based CRM, Customer Centred Organizational Configuration, Technology based CRM</td>
<td>0.745</td>
<td>0.555</td>
<td>0.55</td>
<td>0.484</td>
<td>2.037</td>
</tr>
<tr>
<td>Constant, value based CRM, Customer Centred Organizational configuration, Technology based CRM, Service quality</td>
<td>0.852</td>
<td>0.726</td>
<td>0.723</td>
<td>0.38</td>
<td>1.926</td>
</tr>
</tbody>
</table>

**Source:** Survey Data (2017)

The DW test results in Table 4.14 indicate that the first models with value based CRM; customer centred organizational configuration, technology based CRM and customer satisfaction had DW of 2.057, 2.1 and 2.03 respectively. Results further indicate that when three independent variables were combined they yielded a DW of 2.037 while inclusion of service quality results in DW of 1.926. The findings show that the DW for all the variables was close to 2 and assumption of independence of errors was justified. The results further suggest that the models can be estimated.

**4.6.8 Multicollinearity Test**

The study conducted a tolerance and Variance Inflation Factor (VIF) analysis to determine the presence of multicollinearity. The results are shown in Table 4.15.
Table 4.15: Multicollinearity Test Results

<table>
<thead>
<tr>
<th></th>
<th>Collinearity Statistics</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Based CRM</td>
<td>.512</td>
<td>1.952</td>
</tr>
<tr>
<td>Customer Centred</td>
<td>.452</td>
<td>2.213</td>
</tr>
<tr>
<td>Organizational</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Configuration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology Based CRM</td>
<td>.471</td>
<td>2.122</td>
</tr>
<tr>
<td>Service Quality</td>
<td>.458</td>
<td>2.184</td>
</tr>
<tr>
<td>Demographic</td>
<td>.983</td>
<td>1.017</td>
</tr>
<tr>
<td>characteristics</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: Customer Satisfaction

Source: Survey Data (2017)

Table 4.15 shows that the tolerance value for all the variables was less than 1 and the VIF was approximately 2. The results suggest absence of multicollinearity since the values are within tolerable levels as recommended by Field (2009).

4.6.9 Correlation Analysis Results

Correlation analysis is a measure of the degree of association between two variables.

Pearson Product moment correlation coefficient technique was used to establish the relationship between value based CRM, customer centred organizational configuration, technology based CRM and customer satisfaction. The correlation resulted are presented in Table 4.16.
The results presented in Table 4.16 indicate that there exist varied degrees of interrelationships between the study variables. Value based CRM significantly correlates with customer satisfaction ($r=0.639$; $P<0.05$). Similarly, customer centred organizational configuration is correlated with customer satisfaction and value based CRM at $r=0.692$; $P<0.05$ and $r=0.0, 743$; $P<0.05$ respectively. The relationship between technology based CRM and customer satisfaction is a fairly strong and positive correlation with $r=0.663$ and $p$-value $<0.05$. Technology based CRM, customer satisfaction, value based CRM and customer centred organization configuration were also interrelated at $r=0.663$, $P<0.05$; $r=0.681$, $P<0.05$ and $r=0.692$, $P<0.05$ respectively. The relationship between customer centred organizational

Table 4.16: Pearson Correlation Matrix

<table>
<thead>
<tr>
<th>Source: Survey Data (2017)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Customer satisfaction</th>
<th>Value Based CRM</th>
<th>Customer Centred Organizational Configuration</th>
<th>Technology Based CRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Satisfaction</td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>328</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Based CRM</td>
<td>Pearson Correlation</td>
<td>.639**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>328</td>
<td>336</td>
<td></td>
</tr>
<tr>
<td>Customer Centred</td>
<td>Pearson Correlation</td>
<td>.692</td>
<td>.743</td>
<td>1</td>
</tr>
<tr>
<td>Organizational</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Configuration</td>
<td>N</td>
<td>328</td>
<td>335</td>
<td>335</td>
</tr>
<tr>
<td>Technology Based CRM</td>
<td>Pearson Correlation</td>
<td>.663**</td>
<td>.681**</td>
<td>.692**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>328</td>
<td>332</td>
<td>332</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).
configuration and value based CRM was stronger than any other relationship. This suggests that customer centred organizational configuration is a major determinant of account holder satisfaction in commercial banks.

4.7 Testing of Hypotheses

This section presents results of the five hypotheses carried out to establish the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya. The study also indicates the results on the effect of the mediating and moderating variables on the relationship between CRM and satisfaction. The section also presents diagnostic tests that were performed to ascertain the suitability of multiple regression to give accurate estimates of models.

4.7.1 Effect of Value Based CRM on Customer Satisfaction

To evaluate the effect of value based CRM on customer satisfaction the following hypothesis was tested:

H₀hyp: Value based CRM has no effect on satisfaction of commercial banks’ account holders in Nairobi City County, Kenya.

The regression results are presented in Table 4.17 (a-c). Table 4.17 (a) represents the results for goodness-of-fit of the regression model for value based CRM and customer satisfaction.

Table 4. 17 (a): Model Summary

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.639*</td>
<td>.409</td>
<td>.407</td>
<td>.55564</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)
The results shown in Table 4.17 (a) indicate an $R^2$ of 0.409. This implies that 40.9% of variation in customer satisfaction can be explained by value based CRM which has a fairly moderate explanatory power.

Table 4.17 (b) indicates the overall significance of the regression model for value based CRM and customer satisfaction.

**Table 4. 17(b): ANOVA**

<table>
<thead>
<tr>
<th>Source: Survey Data (2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
</tr>
<tr>
<td>Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Results in Table 4.17 (b) show that the overall significance of the model was statistically significant with F-value=225.24 and P-value of 0.000<0.05. Therefore, the hypothesis that value based CRM had no effect on satisfaction of commercial banks account holders was not supported by the study. The study concluded that value based CRM contributes significantly to prediction of customer satisfaction in commercial banks.

Table 4.17 (c) shows the results of the significance of the regression of value based CRM and customer satisfaction.

**Table 4.17 (c): Regression Coefficients**

<table>
<thead>
<tr>
<th>Source: Survey Data (2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstandardized Coefficients</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>Value based CRM</td>
</tr>
</tbody>
</table>

Table 4.17 (c) shows regression coefficient value of the computed composite score of value based CRM of 0.575 with t-statistic of 15.008 and P-value of 0.000<0.05. This
implies that a unit change in value based CRM effect change in customer satisfaction by a factor of 0.575. Further, the results indicate that value based CRM significantly affects satisfaction of commercial banks account holders. Hence, the study rejects $H_{01}$ at p-value < 0.05 and concludes that value based CRM affects satisfaction of commercial banks customers. These findings corroborate with Coelho and Henseler (2009) who established that customization of products and services increased customer satisfaction. Similarly, Halimi et al., (2011) found customization of products and services enhanced satisfaction in the banking sector while Rostami et al., (2014) found complaint handling to have a positive effect on customer satisfaction. However, the study findings contradict Sadek and Tantawi (2009) who found a positive relationship between CRM and satisfaction when CRM variables were applied together.

From the regression results in Table 4.17 (a-c), regression equation to estimate customer satisfaction was formulated as:

$$CS=1.437+0.575VB+\epsilon$$

Where;

$CS =$ Customer Satisfaction

$VB =$ Value based CRM

$0.575 =$ an estimate for the expected increase in $CS$ in response to a unit increase in $VB$. 
4.7.2 Customer Centred Organizational Configuration and Customer Satisfaction

To assess the effect of customer centred organizational configuration on customer satisfaction, simple linear regression analyses were carried out to test the following null hypothesis:

\( H_{02} \): Customer Centred Organization has no effect on satisfaction of commercial banks’ account holders in Nairobi County, Kenya.

The regression results are presented in Table 4.18 (a-c). Simple linear regression results in Table 4.18(a) show the goodness-of-fit of the model for customer centred organizational configuration and satisfaction.

**Table 4. 18(a): Model Summary**

<table>
<thead>
<tr>
<th>R</th>
<th>R^2</th>
<th>Adjusted R^2</th>
<th>Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.692^a</td>
<td>.478</td>
<td>.477</td>
<td>.52186</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

The results in Table 4.18 (a) show an adjusted R^2=0.478 indicating that customer centred organizational configuration affected variation in customer satisfaction by 47.8% while 52.2% of the variation was accounted for by other factors not included in the model. This implies that customer centred organizational configuration had a moderate explanatory power on customer satisfaction.

Results in Table 4.18(b) indicate the overall significance of the linear regression model.

**Table 4. 18(b): ANOVA**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>81.406</td>
<td>1</td>
<td>81.406</td>
<td>298.91</td>
<td>.000^a</td>
</tr>
<tr>
<td>Residual</td>
<td>88.783</td>
<td>326</td>
<td>.272</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>170.189</td>
<td>327</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)
The overall significance of the study model in Table 4.17 (b) was statistically significant with F-value = 298.911 and P-value=0.000 <0.05). This means customer centred organizational configuration had a significant effect on account holder satisfaction in commercial banks. The null hypothesis that customer centred organizational configuration has no effect on customer satisfaction was not supported.

Table 4.18 (c) indicates the results for significance of the regression model for customer centred organizational configuration and customer satisfaction.

**Table 4. 18 (c): Regression Coefficients**

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.898</td>
<td>.145</td>
<td>6.198</td>
<td>.000</td>
</tr>
<tr>
<td>Customer Centred Organizational Configuration</td>
<td>.707</td>
<td>.041</td>
<td>17.289</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

The results in Table 4.18 (c) show a regression coefficient value of the computed composite score of customer centred organizational configuration of 0.707 and P-value of 0.000 < 0.05 which is statistically significant. This implies that a unit change in customer centred organizational configuration affected change in customer satisfaction by a factor of 0.707. The results fail to support H₀₂ and conclude that customer centred organization has a significant effect on satisfaction of commercial banks’ account holders.

These results corroborate with Joybari and Brokhaeian (2013) who concluded that a positive and significant relationship existed between organizational customer focus and customer satisfaction. The findings are also in agreement with Benani and
Osarenhoe (2013) who argued that successful implementation of CRM requires support of top management, cross functional business processes and employee customer orientation in order to satisfy customers. These findings also concur with Day (2002) who found that companies that successfully implemented CRM maintained a customer centric organizational configuration that promotes a seamless interaction with customers and departments in an organization. In addition, Shang and Lin (2010) found that organizational customer oriented culture and employee capabilities had a statistically significant effect on people driven CRM processes and values. The study also asserted that internal functional coordination and high quality customer centered business processes were critical for implementation of CRM. Based on the results in Table 4.17 (a-c), the regression equation that can be used for prediction purpose was stated as:

\[ CS = 0.898 + 0.707CC + \varepsilon \]  

Where; CS=Customer Satisfaction  
CC=Customer Centered Organizational Configuration

### 4.7.3 Effect of Technology Based CRM on Customer Satisfaction

To examine the effect of technology based CRM, the study conducted simple regression analysis and tested the following hypothesis;

\[ H_{03}: \text{Technology based CRM has no effect on satisfaction of commercial banks’ account holders in Nairobi County, Kenya.} \]

The regression results are shown in Tables 4.19 (a-c).

Table 4.19(a) presents the results for goodness-of-fit of the regression model for technology based CRM and customer satisfaction.
Table 4.19(a): Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.663a</td>
<td>.440</td>
<td>.438</td>
<td>.54110</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

The results in Table 4.19 (a) show an adjusted $R^2 = 0.438$ indicating that technology based CRM explained 43.8% change in customer satisfaction in commercial banks.

Table 4.19 (b) shows the results for the overall significance of the model for technology based CRM and customer satisfaction.

Table 4.19(b): ANOVA

| Source: Survey Data (2017) |

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>74.684</td>
<td>1</td>
<td>74.684</td>
<td>255.07</td>
</tr>
<tr>
<td>Residual</td>
<td>95.15</td>
<td>325</td>
<td>.293</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>169.839</td>
<td>326</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results in Table 4.19 (b) indicate that overall significance of the model was statistically significant with $F=255.078$ and $P$-value =0.000 ($P \leq 0.05$). This implies that technology based CRM had a statistically significant effect on satisfaction of account holders in commercial banks.

The coefficient results of CRM and customer satisfaction in Table 4.19 (c) indicate the significance of the linear regression model of technology based CRM and customer satisfaction.

Table 4.19(c): Regression Coefficients

| Source: Survey Data (2017) |

<table>
<thead>
<tr>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.948</td>
<td>.153</td>
<td></td>
</tr>
<tr>
<td>Technology Based CRM</td>
<td>.645</td>
<td>.040</td>
<td>.663</td>
</tr>
</tbody>
</table>
The results in Table 4.19 (c) show a computed composite score of technology based CRM of 0.645 and P-value=0.000 (P≤0.05). This implies that a unit change in technology based CRM affect customer satisfaction by a factor of 0.645. The results reject the null hypothesis and conclude that technology based CRM has a significant effect on satisfaction of commercial banks’ account holders in Nairobi County. These findings conform to Roy and Ganguli (2011) who found that technology ease of use, reliability, convenience and customer service had a positive and significant relationship with customer satisfaction. These findings also support Thuo (2011) who found that commercial banks in Kenya had implemented CRM and had adopted technology to a moderate extent.

The prediction regression model was stated as:

\[
\text{CS} = 0.948 + 0.645\text{TB} + \varepsilon
\]

Where:

\[
\text{CS} = \text{Customer Satisfaction} \\
\text{TB} = \text{Technology based CRM}
\]

Further, in order to reduce the errors attributed to simple linear regression multiple linear regression analysis was conducted to assess the joint effect of value based CRM; customer centred organizational configuration and technology based CRM on satisfaction of commercial banks account holders. The regression results for CRM and customer satisfaction are summarized in Tables 4.20 (a-c).

**Table 4.20(a) Goodness- of-Fit of for CRM and Customer Satisfaction**

<table>
<thead>
<tr>
<th>R</th>
<th>R^2</th>
<th>Adjusted R^2</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.739</td>
<td>.546</td>
<td>.545</td>
<td>.487</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)
The results in Table 4.20 (a) indicate $R^2$ of 0.546 which show 54.6% of variation in customer satisfaction is explained by CRM. Therefore, variation in account holder satisfaction among commercial banks can be attributed to CRM practices.

Table 4.20 (b) shows the overall significance of the model for CRM and customer satisfaction.

**Table 4. 20(b): ANOVA**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>92.969</td>
<td>1</td>
<td>92.969</td>
<td>392.483</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>77.220</td>
<td>326</td>
<td>.237</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>170.189</td>
<td>327</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey data (2017)

The results in Table 4.20 (b) indicate an F-static of 392.483 and p-value = 0.000 <0.05.

This implies that CRM has a significant effect on satisfaction of account holders in commercial banks.

Table 4.20 (c) presents the results of the significance of the regression model for CRM and customer satisfaction.

**Table 4. 20 (c): Regression Coefficients**

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B .569</td>
<td>Std. Error .143</td>
<td>3.979</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>CRM .793</td>
<td>.040</td>
<td>.739</td>
<td>19.811</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

The coefficient results of CRM and customer satisfaction in Table 4.19 (c) are statistically significant at 5%; $\beta$ = 0.793 and p-value = 0.000. The results conclude
that CRM has a significant effect on satisfaction of commercial banks’ account holders in Kenya. Based on the results in Table 4.20 (a-c), the following model was formulated:

\[ CS = 0.569 + 0.793 \text{CRM} + \varepsilon \]

Where:

CS = Composite index of Customer Satisfaction

CRM = Composite index of Customer Relationship Management

\( \varepsilon \) = Error term

Multiple linear regression analysis was further conducted to determine the joint effect of independent variables on customer satisfaction as stated in model 3.1. The results are indicated in Table 4.21 (a) which shows the results for goodness-of-fit of the model on the relationship between CRM and customer satisfaction.

**Table 4.21(a): Model Summary**

<table>
<thead>
<tr>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.745°</td>
<td>.555</td>
<td>.550</td>
<td>.48395</td>
</tr>
</tbody>
</table>

Predictors: (Constant), Value Based CRM, Customer Centred Organizational configuration, Technology Based CRM; Dependent Variable: Customer Satisfaction

Source: Survey Data (2017)

The results in Table 4.21 (a) indicate an adjusted \( R^2 \) of 55%. This means that 55% of variation in customer satisfaction is explained by value based CRM, customer centred organizational configuration and technology based CRM in the model and that 45% of the variation is due to factors not considered in this model. The results also reveal that the combined effect of CRM on customer satisfaction of account holders is higher than the effect of the individual variables.
Table 4.21 (b) shows the ANOVA for CRM and customer satisfaction.

**Table 4. 21(b): ANOVA**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>94.189</td>
<td>3</td>
<td>31.396</td>
<td>134.05</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>75.650</td>
<td>323</td>
<td>.234</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>169.839</td>
<td>326</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Predictors : (Constant), Value Based CRM, Customer Centered Organizational Configuration, Technology Based CRM ; Dependent Variable: Customer Satisfaction

Source: Survey Data (2017)

The results in Table 4.21 (b) show that the overall significance of the model was statistically significant at F=134.053 and P-value=0.000<0.05. This means that the model was statistically significant at 95% confidence level. The findings also imply that there was a significant combined effect of CRM on satisfaction of commercial banks account holders in Nairobi County. Consequently, the findings indicate that effective CRM programmes in the banking sector should incorporate the three variables so that the desired customer satisfaction levels can be achieved.

Table 4.21 (c) shows the significance of the regression results of CRM and customer satisfaction.

**Table 4. 21(c): Regression Coefficients**

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.493</td>
<td>.147</td>
<td></td>
<td>.001</td>
</tr>
<tr>
<td>Value Based CRM</td>
<td>.157</td>
<td>.053</td>
<td>.174</td>
<td>.003</td>
</tr>
<tr>
<td>Customer Centred Organizational Configuration</td>
<td>.363</td>
<td>.062</td>
<td>.355</td>
<td>.000</td>
</tr>
<tr>
<td>Technology Based CRM</td>
<td>.289</td>
<td>.053</td>
<td>.298</td>
<td>.000</td>
</tr>
</tbody>
</table>

Predictors: (Constant), Value Based CRM, Customer Centred Organizational Configuration, Technology Based CRM; Dependent Variable: Customer Satisfaction

Source: Survey Data (2017)
The coefficient results in Table 4.21 (c) revealed that the relationship between value based CRM and customer satisfaction was statistically significant (Regression coefficient =0.157, P-value=0.003). This implies that for one unit increase in value based CRM, customer satisfaction will increase by a factor of 0.157 when holding other factors constant. Similarly, the relationship between customer centred organization configuration and customer satisfaction was statistically significant (Regression coefficient =0.363, P-value = 0.000). This implies that upon an increase of customer centred organizational configuration by one unit, customer satisfaction is expected to increase by a factor of 0.363. The association between technology and customer satisfaction was also statistically significant (Regression coefficient =0.289, P-value=0.000). This implies that an increase in technology by one unit will lead to an increase in customer satisfaction by a factor of 0.289 when holding other factors constant.

A comparison of the findings in simple regression in Tables 4.17, 4.18 and 4.19 and joint effect of CRM on customer satisfaction in Tables 4.20 and 4.21 reveal significant differences. The results for joint effect of CRM on satisfaction explained 55% of change in customer satisfaction. This indicates a higher explanatory power than value based CRM at 40.9%, customer centred organization configuration at 47.8% while technology based CRM was 43.8%. In testing the significance of the models for individual variables and their joint effect, the beta coefficients significantly reduced; value based CRM from 0.575 to 0.157; customer centred organizational configuration; 0.707 to 0.363 and technology based CRM; 0.645 to 0.289. This implies that a unit change in the independent variables had a higher contribution to the variation in the dependent variable when assessed individually than jointly. As indicated in the findings for both simple linear and multiple linear
regression results, customer centred organizational configuration had the highest effect on satisfaction of commercial banks account holders. These results are not in agreement with the findings of Sadek and Tantawi (2009) who found that customer focus CRM, CRM organization and technology based CRM had a positive relationship with satisfaction when the variables were combined than when they were applied differently.

Based on the results, the predictive model for customer satisfaction was formulated as:

\[ CS = 0.493 + 0.157VB + 0.363CC + 0.289TB + \epsilon \]  

Where:

- CS = Composite index of Customer satisfaction
- VB = Value based CRM
- CC = Customer centred organizational configuration
- TB = Technology based CRM
- 0.493 = Constant when independent variable is equated to 0

### 4.7.4 Moderating Effect of Demographic Characteristics on the Relationship between CRM and Customer Satisfaction

The fourth study hypothesis was to assess the moderating effect of demographic characteristics on the relationship between CRM and satisfaction of commercial banks account holders. The study adopted Baron and Kenny (1986) approach which assumed moderation to take place when effects of CRM, demographic characteristics and interaction term on customer satisfaction are statistically significant. The study used stepwise multiple linear regression to assess the moderating effect of the demographic variables.
H₀₄: Demographic characteristics have no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

This hypothesis was tested by treating the three demographic characteristics (age, gender, income) separately. The moderating variables were introduced into the model one at a time. Gender variable was coded as: male 1 and female 2 and introduced into the model. Therefore, the moderating effect of each demographic variable was tested separately using stepwise multiple linear regression analysis:

H₄₀: Age has no moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.

In the first step, the composite index of CRM and age were regressed on customer satisfaction. The results are shown in Tables 4.22 (a-c).

Table 4.22 (a) indicates the results of the goodness- of- fit for moderating effect of age on the relationship between CRM and customer satisfaction.

**Table 4.22 (a): Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1ᵃ</td>
<td>.739ᵃ</td>
<td>.546</td>
<td>.545</td>
<td>.487</td>
</tr>
<tr>
<td>2ᵇ</td>
<td>.756ᵇ</td>
<td>.572</td>
<td>.569</td>
<td>.474</td>
</tr>
<tr>
<td>3ᶜ</td>
<td>.926ᶜ</td>
<td>.857</td>
<td>.856</td>
<td>.274</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), CRM  
b. Predictors: (Constant), CRM, Age (Years)  
c. Predictors: (Constant), CRM, Interaction effect, Age (Years)

Dependent variable: Customer satisfaction  
Source: Survey Data (2017)

The result in Table 4.22 (a) indicate an adjusted R² of 0.659. This means that 56.9% of customer satisfaction was explained by age. In addition, when interaction effect
was introduced into the model the explanatory power increased from 54.5% to 56.9% and 85.6% as shown in table 4.22 (a). Hence, there was a change in adjusted R² between the 2nd and 3rd models which supports moderation effect of age on CRM and customer satisfaction.

Table 4.22 (b) shows the overall significant of the regression result of the moderating effect of age on the relationship between CRM and customer satisfaction of commercial banks’ account holders.

Table 4. 22(b) ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>92.969</td>
<td>1</td>
<td>92.969</td>
<td>392.483</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>77.220</td>
<td>326</td>
<td>.237</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>170.189</td>
<td>327</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Regression</td>
<td>97.280</td>
<td>2</td>
<td>48.640</td>
<td>216.816</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>72.909</td>
<td>325</td>
<td>.224</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>170.189</td>
<td>327</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Regression</td>
<td>145.843</td>
<td>3</td>
<td>48.614</td>
<td>646.950</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>24.347</td>
<td>324</td>
<td>.075</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>170.189</td>
<td>327</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), CRM
b. Predictors: (Constant), CRM, Age (Years)
c. Predictors: (Constant), CRM, Interaction effect, Age (Years)
d. Dependent Variable: Customer Satisfaction

Source: Survey Data (2017)

Results in Table 4.22 (b) indicates F-statistics and P-values (F=392.483, P=0.000<0.05; F=216.816, P=0.000<0.05, F=646.950, P =0.000<0.05) for models 1, 2 and 3 respectively. This implies that CRM, age and interaction effect have a statistically significant moderating effect on customer satisfaction in the banking sector.

Table 4.22 (c) indicates the significance of the model of the moderating effect of age on the relationship between CRM and customer satisfaction
Table 4. 22(c): Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t-statistic</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.569</td>
<td>.143</td>
<td>3.979</td>
</tr>
<tr>
<td>CRM</td>
<td>.793</td>
<td>.040</td>
<td>.739</td>
<td>19.811</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>.549</td>
<td>.139</td>
<td>3.941</td>
</tr>
<tr>
<td>CRM</td>
<td>.732</td>
<td>.041</td>
<td>.682</td>
<td>17.710</td>
</tr>
<tr>
<td>Age (Years)</td>
<td>.024</td>
<td>.005</td>
<td>.169</td>
<td>4.384</td>
</tr>
<tr>
<td>3</td>
<td>(Constant)</td>
<td>2.512</td>
<td>.112</td>
<td>22.500</td>
</tr>
<tr>
<td>CRM</td>
<td>.254</td>
<td>.030</td>
<td>.236</td>
<td>8.325</td>
</tr>
<tr>
<td>Interaction effect</td>
<td>.225</td>
<td>.009</td>
<td>1.612</td>
<td>26.431</td>
</tr>
<tr>
<td>Age (Years)</td>
<td>-.769</td>
<td>.030</td>
<td>-1.461</td>
<td>-25.422</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Customer Satisfaction

Source: Survey Data (2017)

Results in table 4.22 (c) indicate that the moderating effect of age on CRM and customer satisfaction is statistically significant at β=0.732, P=0.000<0.05; β=0.024, P= 0.000<0.05. The study also found that introduction of interaction in the model produced statistically significant results at β= 0.254, P=0.000< 0.05; β=0.225, P= 0.000<0.05. The study found that there exists a relationship between customer satisfaction and CRM. The regression coefficient of 0.793 implies that for every unit change in CRM, customer satisfaction is adjusted by a factor of 0.793 which is statistically significant at 95% confidence level. Similarly, on addition of age on the same relationship, the study found that the regression coefficient decreases from 0.793 to 0.732. The results also show that age will increase customer satisfaction by a factor of 0.024. This value was statistically significant at 5% significance level (P-value = 0.024<0.05). This suggests that in the absence of an interaction term, the older account holders were more satisfied with banking services than the younger ones. The third model shows that the relationship between CRM, age and interaction term was inverse but statistically significant (beta=-0.769, P=0.000<0.05). In the
presence of interaction term, customer satisfaction decreases with decrease in age meaning the younger are more satisfied with commercial banking services.

The findings in Tables 4.22 (a-c) are in line with Narteh and Kuada (2014) who established that age moderates customer satisfaction in service industries such as banks. Further, the results contradict Umarani et al., (2013) that age has a positive and significant effect on customer satisfaction in the banking sector. The study further clarifies that increase in age decreases customer satisfaction and vice versa. Therefore, the hypothesis that age has no moderating effect on the relationship between CRM and customer satisfaction was not supported by the results. Based on the regression results in Table 4.22 (a-c), the following model was formulated:

\[
\text{Customer Satisfaction} = 2.512 + 0.254 \text{CRM} - 0.769 \text{Age} + 0.225 \text{CRM} \times \text{Age} \quad \ldots \ldots \ldots \ldots \ldots 3.14
\]

To test the moderating effect of gender on the relationship between CRM and gender stepwise multiple linear regression was conducted. The results are presented in Table 4.23 (a-c).

**H4(ii): Gender has no moderating effect on the relationship between CRM and satisfaction of commercial bank account holders in Nairobi City County, Kenya.**

Table 4.23 (a) depicts the results of the goodness of fit of the model on moderating effect of gender on CRM and customer satisfaction.
Table 4.23(a): Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.739&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.546</td>
<td>.545</td>
<td>.487</td>
</tr>
<tr>
<td>2</td>
<td>.791&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.625</td>
<td>.623</td>
<td>.443</td>
</tr>
<tr>
<td>3</td>
<td>.954&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.911</td>
<td>.910</td>
<td>.216</td>
</tr>
</tbody>
</table>

|<sup>a</sup> Predictors: (Constant), CRM  
|<sup>b</sup> Predictors: (Constant), CRM, Gender  
|<sup>c</sup> Predictors: (Constant), CRM, Interaction effect, Gender  

Dependent variable: Customer satisfaction

Source: Survey Data (2017)

The first model in Table 4.23 (a) shows the relationship between CRM and customer satisfaction with an adjusted $R^2 = 0.545$. This implies that 54.5% of the variation in the model is accounted for by CRM. The second model shows the relationship between CRM, gender and customer satisfaction with adjusted $R^2$ of 0.623 which implies that 62.3% of the variation in customer satisfaction is explained by CRM and gender. The results show a change in adjusted $R^2$ value by a margin of 7.8%. This reveals that inclusion of gender in the model improves the relationship between CRM and customer satisfaction. The third model took into account the interaction effect between CRM and gender. The adjusted $R^2$ was 0.910 which implies that 91% of the variation is accounted for by CRM, demographic characteristics and interaction affect. This reveals a high explanatory power on customer satisfaction as indicated in the increase from 62.3% to 91% which translates to 28.5%.

Table 4.23 (b) presents the analysis of overall significance of the regression results based on the moderating effect of gender on the relationship between CRM and customer satisfaction.
Table 4.23(b): ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>92.969</td>
<td>1</td>
<td>92.969</td>
<td>392.483</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>77.220</td>
<td>326</td>
<td>.237</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>170.189</td>
<td>327</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Regression</td>
<td>106.444</td>
<td>2</td>
<td>53.222</td>
<td>271.349</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>63.745</td>
<td>325</td>
<td>.196</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>170.189</td>
<td>327</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Regression</td>
<td>155.021</td>
<td>3</td>
<td>51.674</td>
<td>1103.816</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>15.168</td>
<td>324</td>
<td>.047</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>170.189</td>
<td>327</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), CRM
b. Predictors: (Constant), CRM, Gender
c. Predictors: (Constant), CRM, Interaction effect, Gender
d. Dependent Variable: Customer Satisfaction

Source: Survey Data (2017)

The regression analysis results in table 4.23 (b) indicate the overall significance for the three models. The study found that the first model was statistically significant at 95% confidence level (F-statistic=392.483, P-value=0.000<0.05). Similarly, the study revealed the second and third models were statistically significant at 5% significance level (F=271.349, P-value=0.000<0.05; F=1103.816, P-value =0.000<0.5 respectively). The results of the three models of CRM and gender predicting customer satisfaction indicate a significant relationship with customer satisfaction with commercial banking services among account holders in Nairobi County, Kenya.

Table 4.23 (c) indicates significance of the results of the regression models of CRM, gender and customer satisfaction.
The findings in Table 4.23 (c) indicate the coefficients for the three models considered in the study. Regression results reveal a statistically significant relationship between the variables. The regression coefficient of 0.793 implies that for every unit change in CRM, customer satisfaction is adjusted by a factor of 0.793 which is statistically significant at 5%. The inclusion of gender in the second model, results in regression coefficient reduction from 0.793 to 0.642. This implies that a unit increase in CRM will increase customer satisfaction by 0.642 keeping the gender variable constant. The results also show that gender will affect customer satisfaction by a factor of 0.108. This value was statistically significant at 5% significance level (P=0.000<0.05). The third model shows that the relationship between CRM, gender and interaction effect was statistically significant at 5% significance level (P=0.000<0.05). The findings further revealed that female respondents were more satisfied with banking services than males.
The findings contradict Zulkifli and Tahir (2012) who found no significant difference between customers CRM perceptions based on gender. Further, the findings support Umarani and Mahajan (2014) who established that gender affects satisfaction levels in the banking sector. Hence, the results did not support the null hypothesis that gender has no moderating effect on the relationship between CRM and customer satisfaction in the banking sector.

Based on the findings of the multiple regression analysis used to estimate moderating effect of gender on CRM and customer satisfaction, the model was formulated as:

\[ CS = 2.780 + 0.157 \text{CRM} - 1.797 \text{Gender} + 0.537 \text{CRM} \times \text{Gender} + \varepsilon \]

\( H_{4(iii)} \): Income has no moderating effect on the relationship between CRM and satisfaction of commercial banks’ account holders in Nairobi City County, Kenya.

Table 4.24 (a) presents results of the goodness-of-fit of moderating effect income on relationship between CRM and customer satisfaction.

**Table 4.24 (a): Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.735\textsuperscript{a}</td>
<td>.541</td>
<td>.540</td>
<td>.486</td>
</tr>
<tr>
<td>2</td>
<td>.741\textsuperscript{b}</td>
<td>.549</td>
<td>.546</td>
<td>.483</td>
</tr>
<tr>
<td>3</td>
<td>.935\textsuperscript{c}</td>
<td>.874</td>
<td>.873</td>
<td>.256</td>
</tr>
</tbody>
</table>

\( a. \) Predictors: (Constant), CRM \\
\( b. \) Predictors: (Constant), CRM, Income Level \\
\( c. \) Predictors: (Constant), CRM, Income Level, Interaction effect

Source: Survey Data (2017)

Table 4.24 (a) reveals that CRM explains 54% of the variation in customer satisfaction. The results also reveal that adjusted \( R^2 \) increased by 0.6% from 54% to 54.6% when income variable was added in the model. Further, the results indicate that
adjusted $R^2$ value increased to 0.873 when an interaction (CRM* income) was included in the relationship between CRM, income and customer satisfaction. This shows a remarkable change in explanatory power on customer satisfaction from 54.6% to 87.3% translating to 32.7% change. Therefore, the regression results of the three models were significant at 95% confidence level.

Table 4.24(b) presents the overall significance of the regression results of CRM, income and interaction effect on customer satisfaction.

Table 4.24 (b): ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>90.589</td>
<td>1</td>
<td>90.589</td>
<td>382.938</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>76.883</td>
<td>325</td>
<td>.237</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>167.471</td>
<td>326</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Regression</td>
<td>91.946</td>
<td>2</td>
<td>45.973</td>
<td>197.22</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>75.525</td>
<td>324</td>
<td>.233</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>167.471</td>
<td>326</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Regression</td>
<td>146.356</td>
<td>3</td>
<td>48.785</td>
<td>746.282</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>21.115</td>
<td>323</td>
<td>.065</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>167.471</td>
<td>326</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), CRM
b. Predictors: (Constant), CRM, Income Level
c. Predictors: (Constant), CRM, Income Level, Interaction effect
d. Dependent Variable: Customer Satisfaction

Source: Survey Data (2017)

The results of the first model in Table 4.24 (b) indicate a significant relationship between CRM and customer satisfaction ($F=382.938, P=0.000<0.05$). In addition, the second model reveals a significant moderating effect of income on the relationship between CRM and customer satisfaction ($F=197.22, P=0.000<0.05$). Further, the inclusion of the interaction effect in the third model yielded a significant relationship between CRM and customer satisfaction in commercial banks, ($F=746.282, P=0.000$).
Table 4.24 (c) depicts the significance of the individual regression models.

**Table 4.24 (c): Regression Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t-statistic</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.586</td>
<td>.144</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRM</td>
<td>.788</td>
<td>.040</td>
<td>.735</td>
<td>4.080</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.706</td>
<td>.151</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRM</td>
<td>.798</td>
<td>.040</td>
<td>.745</td>
<td>4.675</td>
</tr>
<tr>
<td>Income Level</td>
<td>-.043</td>
<td>.018</td>
<td>-.091</td>
<td>-2.413</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.524</td>
<td>.102</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRM</td>
<td>.261</td>
<td>.028</td>
<td>.243</td>
<td>9.219</td>
</tr>
<tr>
<td>Income Level</td>
<td>-.670</td>
<td>.024</td>
<td>-1.400</td>
<td>-28.257</td>
</tr>
<tr>
<td>Interaction effect</td>
<td>.193</td>
<td>.007</td>
<td>1.559</td>
<td>28.850</td>
</tr>
<tr>
<td></td>
<td>a. Dependent Variable: Customer Satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

The results in Table 4.24 (c) indicate a significant variation in the relationship between CRM and customer satisfaction in all the models considered in the study. In the first model, a regression coefficient of 0.788 implies that for every unit change in CRM, customer satisfaction is adjusted by a factor of 0.788 which is statistically significant at 95% confidence level (P=0.000<0.05). The addition of income variable on the relationship between CRM and customer satisfaction revealed an increase in the regression coefficient from 0.788 to 0.798. This implies that a unit increase in CRM will increase customer satisfaction by 0.798 with income remaining constant.

The results also indicate that increase in income level will decrease customer satisfaction by a factor of 0.043. This value was statistically significant at 5% significance level (beta =-0.043, P=0.000<0.05). The third model shows that the relationship between CRM, income level and interaction effect was statistically significant at 5% significant level (beta=-0.670, P=0.00<0.05; beta=0.193<0.05 respectively). The results suggest that increase in income decreases satisfaction of commercial banks account holders.
The results of the study support Krishna et al., (2014) who found a significant relationship between CRM and customers’ income level. Further, the findings are in agreement with Narteh and Kuada (2014) assertion that income levels moderate customer satisfaction in the service industry. The findings suggest that income level moderates the relationship between CRM and satisfaction of commercial banks. Therefore, the hypothesis that income has no moderating effect on the relationship between CRM and satisfaction of commercial banks’ account holders was not supported by the results.

From the findings in Table 4.24 (a-c), the following regression equation was formulated to estimate satisfaction of commercial banks account holders in Nairobi County, Kenya.

$$CS=2.524+0.261CRM+0.67\text{Income}+0.193CRM*\text{Income} + \epsilon$$

Further, the results in Tables 4.22 (a-c), 4.23(a-c) and 4.24 (a-c) indicate that although the relationship was statistically significant for all the demographic variables, the explanatory power was lower when an interaction factor was introduced in the model. The study concluded that, demographic characteristics (age, gender, income level) had a statistically insignificant moderating effect on the relationship between CRM and customer satisfaction. Therefore, the null hypothesis that demographic characteristics had no significant moderating effect on the relationship between CRM and satisfaction was not supported by the results of the study. These findings further confirm findings by Narteh and Kuada (2014) that age, gender and income levels moderate customer satisfaction in service industries.
4.7.5 Mediating effect of Service Quality on the relationship between Customer Relationship Management and Customer Satisfaction.

To determine the mediating effect of service quality on the relationship between CRM and customer satisfaction the study tested the following null hypothesis using stepwise multiple linear regression analysis.

**H5: Service quality has no mediating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi County, Kenya.**

The study applied four steps causal path analysis by Baron and Kenny (1986) to test for mediation effect of service quality on the relationship between CRM and customer satisfaction. In the first step, composite index of CRM variables were regressed to predict customer satisfaction. The results of this step indicated were significant as discussed in section 4.7.1(Table 4.17 a-c).

CS=0.569+0.793CRM +ε………………………………………………………………………………3.17
Where; CS=customer satisfaction

CRM=Customer Relationship Management

In the second step; equation 3.7, composite index of CRM was regressed against service quality to predict customer satisfaction. The regression results are presented in table 4.25 (a-c). Table 4.25 (a) depicts the regression results for the goodness-of-fit of the model.

**Table 4. 25(a): Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.817&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.668</td>
<td>.667</td>
<td>.38640</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), CRM

Source: Survey Data (2017)
Table 4.25 (a) shows regression results of adjusted $R^2 = 0.667$. This means that 66.7% of the variation in service quality can be explained by CRM and the rest by factors that were not considered in the study.

Table 4.25 (b) presents the analysis of variance results for CRM predicting service quality.

**Table 4.25(b): ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>99.230</td>
<td>1</td>
<td>99.230</td>
<td>664.63</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>49.269</td>
<td>330</td>
<td>.149</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>148.499</td>
<td>331</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), CRM  
b. Dependent Variable: Service Quality

Source: Survey Data (2017)

The results in Table 4.25 (b) indicate an F-statistic of 664.630 with P-value = 0.000 < 0.05. The results imply that CRM had a statistically significant effect on service quality in commercial banks in Kenya.

Table 4.25 (c) shows the individual significance of the regression model coefficients.

**Table 4.25 (c): Regression Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant</td>
<td>.763</td>
<td>.113</td>
</tr>
<tr>
<td>CRM</td>
<td>.815</td>
<td>.032</td>
</tr>
</tbody>
</table>

Dependent Variable: Service Quality  
Survey Data (2017)
The results in Table 4.25 (c) indicate a regression coefficient of 0.815 which means that for every unit increase in CRM, service quality will increase by a factor of 0.815. In addition, CRM and service quality are statistically significant at 95% confidence level (P=0.000<0.05). Based on the findings, the study developed the following model:

\[ SQ = 0.763 + 0.815 \text{CRM} + \epsilon \]

Where; SQ=Service quality
CRM=Customer Relationship Management

The third step involved regression analysis with service quality as a predictor of customer satisfaction. The results are depicted in Tables 4.26 (a-c).

The results in Table 4.26 (a) reveal the goodness-of-fit of the model of service quality and customer satisfaction.

**Table 4.26 (a): Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.848(^a)</td>
<td>0.719</td>
<td>0.719</td>
<td>0.38276</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), Service Quality
Source: Survey Data (2017)

The results in table 4.26 (a) portray the goodness-of-fit of the model with an adjusted \( R^2 = 0.719 \). This means that 71.9% of the variation in customer satisfaction is explained by service quality and the rest by factors that were not considered in the study.
The analysis of variance results in Table 4.26 (b) indicate the overall significance of the regression model.

Table 4.26 (b): ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1</td>
<td>122.429</td>
<td>835.680</td>
<td>.000a</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>326</td>
<td>.147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>170.189</td>
<td>327</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Service Quality
b. Dependent Variable: Customer Satisfaction

Source: Survey Data (2017)

Table 4.26 (b) indicates the overall significance of the model with F-statistic of 835.680 and P-value=0.000<0.05. This explains that service quality significantly predicts customer satisfaction in the banking sector. This implies that service quality has a statistical significance on customer satisfaction at 95% confidence level.

Table 4.26 (c) depicts the significance of regression coefficients of service quality and customer satisfaction.

Table 4.26 (c): Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.041</td>
<td>.117</td>
<td>.356</td>
<td>.722</td>
</tr>
<tr>
<td>Service Quality</td>
<td>.913</td>
<td>.032</td>
<td>.848</td>
<td>28.908</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Customer Satisfaction

Source: Survey Data (2017)

The regression coefficients of service quality customer and satisfaction in table 4.26 (c) indicate a regression coefficient of 0.913. This implies that a unit increase in service quality, customer satisfaction will change by a factor of 0.913. The results further indicate that the relationship between service quality and customer satisfaction is significant at 95% confidence level. Although there exists a constant in the model,
it is considered insignificant at 5% significance level (constant = .041, P-value = 0.722 > 0.05). Based on the findings the predictive model can be stated as follows:

\[ CS = 0.913SQ + \varepsilon \]

Where; \( CS \) = customer satisfaction

\( SQ \) = service quality

In the 4\textsuperscript{th} step, regression analysis was conducted with CRM and service quality predicting the outcome of customer satisfaction. The results are depicted in tables 4.27 (a-c).

**Table 4.27 (a): Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.852</td>
<td>.725</td>
<td>.724</td>
<td>.37919</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Service Quality, CRM  
Source: Survey data (2017)

Table 4.27(a) shows an adjusted R\(^2\) = 0.724. This means that 72.4% of the changes in customer satisfaction can be explained by the predictor variables (CRM and service quality).

Table 4.27 (b) presents ANOVA results for CRM and service quality predicting customer satisfaction.

**Table 4.27(b): ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>123.460</td>
<td>2</td>
<td>61.730</td>
<td>429.327</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>46.729</td>
<td>325</td>
<td>.144</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>170.189</td>
<td>327</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Service Quality, CRM  
b. Dependent Variable: Customer Satisfaction  
Source: Survey Data (2017)
The results in table 4.27 (b) indicate an F-statistic=429.327 and P-value=0.000 <0.05. This shows that CRM and service quality had a significant effect on customer satisfaction.

Table 4.27 (c), presents the results of significance of regression coefficients for CRM and service quality as predictors of customer satisfaction.

**Table 4. 27(c): Regression Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>-.036</td>
<td>.119</td>
<td>-.300</td>
<td>.764</td>
</tr>
<tr>
<td>CRM</td>
<td>.145</td>
<td>.054</td>
<td>.136</td>
<td>2.677</td>
</tr>
<tr>
<td>Service Quality</td>
<td>.794</td>
<td>.055</td>
<td>.737</td>
<td>14.562</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Customer Satisfaction

Source: Survey Data (2017)

The regression results in table 4.27 (c) show a constant and regression coefficients of CRM and service quality in the model. A regression coefficient of 0.145 implies that keeping other factors constant, a unit change in CRM, increases customer satisfaction by a factor of 0.145. Similarly, regression coefficient of 0.794 implies that keeping other factors constant a unit increase in service quality increases customer satisfaction by a factor of 0.794. Therefore, the coefficients for both predictor variables were statistically significant and support full mediation. The fourth null hypothesis was not supported since there was statistically significant mediating effect of service quality on the relationship between CRM and customer satisfaction. The results are in harmony with Fasih and Khan (2014); Al-Azzam and Fattah (2015) and Kheng (2010 that found all the dimensions of service quality had a positive and significant association with customer satisfaction with banking services.
The findings also support Narteh (2013) who established that service quality was a major determinant of university students’ bank selection and satisfaction with services. Kumar et al., (2010) also found a positive relationship between service quality and customer satisfaction.

From the findings in Table 4.27 (a-c), the following model for predicting customer satisfaction was developed.

\[ CS = -0.036 + 0.145 \text{CRM} + 0.794 \text{SQ} + 0.119 + \epsilon \]

Where; CS=Customer satisfaction  
CRM=Customer Relationship Management  
SQ=Service Quality

Table 4.28 presents a summary of the findings of the mediation effect of service quality on the relationship between CRM and customer satisfaction.

**Table 4. 28: Summary of Mediating Variable**

<table>
<thead>
<tr>
<th>Analysis</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>Beta</th>
<th>P-Value</th>
<th>Significance</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step i</td>
<td>0.739</td>
<td>0.546</td>
<td>0.545</td>
<td>0.793</td>
<td>0.000</td>
<td>Significant</td>
<td>Null hypothesis was not supported at 5% sig.</td>
</tr>
<tr>
<td>ii</td>
<td>0.817</td>
<td>0.668</td>
<td>0.667</td>
<td>0.815</td>
<td>0.000</td>
<td>Significant</td>
<td></td>
</tr>
<tr>
<td>iii</td>
<td>0.848</td>
<td>0.719</td>
<td>0.719</td>
<td>0.913</td>
<td>0.000</td>
<td>Significant</td>
<td></td>
</tr>
<tr>
<td>iv</td>
<td>0.852</td>
<td>0.725</td>
<td>0.724</td>
<td>0.794</td>
<td>0.008</td>
<td>Significant</td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)

The results reject H₀₅ and support the alternative hypothesis that service quality mediates the relationship between CRM and satisfaction of commercial banks account holders in Kenya.

Table 4.29 depicts a summary of the hypotheses tests results on the relationship between CRM, demographic characteristics, service quality and satisfaction.
### Table 4.29: Summary of the Hypotheses Test Results

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>$R^2$</th>
<th>Test Criteria</th>
<th>Test Results</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H$_{01}$: Value based CRM has no effect on satisfaction of commercial banks</td>
<td>0.409</td>
<td>Reject hypothesis if P-value &gt; 0.05 alternatively do not reject.</td>
<td>P-value = 0.000 &lt; 0.05 Regression coefficients significant</td>
<td>Rejects H$_{01}$: Value based CRM has a statistically significant effect on satisfaction of commercial banks account holders in Nairobi City County, Kenya.</td>
</tr>
<tr>
<td>Ho$_2$: Customer centered organizational configuration has no effect on satisfaction of commercial banks account holders in Nairobi City County, Kenya.</td>
<td>0.478</td>
<td>Reject hypothesis if P-value &gt; 0.05 alternatively do not reject.</td>
<td>P-value = 0.000 &lt; 0.05 Regression coefficients significant</td>
<td>Rejects H$_{02}$: Customer centered organizational configuration has a statistically significant effect on satisfaction of commercial banks account holders in Nairobi City County, Kenya.</td>
</tr>
<tr>
<td>H$_{03}$: Technology based CRM has no effect on satisfaction of commercial banks account holders in Nairobi City County, Kenya.</td>
<td>0.440</td>
<td>Reject hypothesis if P-value &gt; 0.05 alternatively do not reject.</td>
<td>P-value = 0.000 &lt; 0.05 Regression coefficients significant</td>
<td>Rejected H$_{03}$: Technology based CRM has a statistically significant effect on satisfaction of commercial banks account holders in Nairobi City County, Kenya.</td>
</tr>
<tr>
<td>H$_{04}$: Demographic characteristics (Age, Gender, Income level) have no moderating effect on the relation between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.</td>
<td>H$<em>{04(i)}$: 0.857 H$</em>{04(ii)}$: 0.911 H$_{04(iii)}$: 0.874</td>
<td>Reject hypothesis if P-value &gt; 0.05 alternatively do not reject.</td>
<td>P-value = 0.000 &lt; 0.05 Regression coefficients significant</td>
<td>Rejected H$_{04}$: Demographic characteristics (age, gender, income) have a statistically significant moderating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.</td>
</tr>
<tr>
<td>H$_{05}$: Service quality has no mediating effect on the relationship between CRM and commercial banks’ account holder satisfaction in Nairobi City County, Kenya.</td>
<td></td>
<td>Reject hypothesis if P-value &gt; 0.05 alternatively do not reject.</td>
<td>P-value = 0.000 &lt; 0.05 Regression coefficient significant</td>
<td>Rejected H$_{05}$: Service quality has a statistically significant mediating effect on the relationship between CRM and satisfaction of commercial banks account holders in Nairobi City County, Kenya.</td>
</tr>
</tbody>
</table>

Source: Survey Data (2017)
Table 4.29 reveals that the hypothesized relationships between variables were not supported by the study findings. The regression analysis results failed to accept null hypotheses $H_{01}$, $H_{02}$, $H_{03}$, $H_{04}$, and $H_{05}$. Therefore CRM has a statistically significant relationship with account holder satisfaction in the banking sector. This relationship is mediated by service quality and moderated by demographic characteristics (age, gender and monthly income level) of individual account holders.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter provides a summary of the major findings of the study. It presents conclusions based on the findings, contribution of the study to theory and practice as well as recommendations and suggestions for further research.

5.2 Summary
Customer satisfaction has been a critical issue of concern among commercial banks because satisfied customers are valuable assets that translate to profitability and competitiveness of commercial banks. This realization has compelled commercial banks to implement various strategic measures to enhance customer satisfaction which affects sustainability and survival in the competitive financial sector. To maintain and build long term relationships with account holders, commercial banks have implemented CRM strategies that focus on business processes, relationships, skills and appropriate technologies that promote effective quality service delivery as well as enhancing customer satisfaction.

Many studies on CRM have been conducted in the banking sector in both developed and developing countries, but few have been carried out in Nairobi City County to examine the effect of CRM on satisfaction of commercial bank account holders. The main assumption of the study was that CRM affects account holder satisfaction in commercial banks. In line with this argument, the researcher developed a comprehensive conceptual framework and formulated five research objectives.
In this regard, the general objective of the study was to empirically establish the effect of CRM on satisfaction of commercial banks account holders in Nairobi City County, Kenya. The specific objectives of this study were to establish the effect of value based CRM, customer centred organizational configuration and technology based CRM on satisfaction of commercial banks account holders in Nairobi City County, Kenya. The study further sought to determine the joint effect of CRM on satisfaction of account holders. In addition, the study assessed the moderating effect of demographic characteristics on the relationship between CRM and account holder satisfaction. Further, the study examined the mediating effect of service quality on the relationship between CRM and satisfaction of commercial banks account holders.

This study was cross-sectional in nature and employed descriptive and explanatory research techniques. The objectives of the study were achieved by collecting primary data using a semi-structured questionnaire. Data was analyzed using both descriptive and inferential statistics to describe and summarize the data while qualitative data was analyzed by direct content analysis. The direct and joint relationships between CRM and customer satisfaction was determined by conducting simple and multiple linear regression analysis. The moderating effect of demographic characteristics on the relationship between CRM and customer satisfaction was assessed by use of stepwise multiple linear regression. Stepwise multiple regression was used to examine the mediating effect of service quality on the relationship between CRM and customer satisfaction.

To address the objectives of this study, five hypotheses were developed and tested to establish the relationship between the independent, mediating, moderating and
dependent variables. The first hypothesis was to establish the effect of value based CRM on satisfaction among account holders of commercial banks in Nairobi City County. The regression analysis results showed that value based CRM had a positive and statistically significant effect on account holder satisfaction. Therefore, the research proposition was rejected and the alternative hypothesis that CRM has a statistically significant effect on satisfaction of commercial banks’ account holders was supported. The results show that if commercial banks enhanced their value based CRM initiatives such as personalized communication, customized services and customer complaint handling, account holders would be satisfied with banking services.

The second objective of the study sought to assess the effect of customer centred organizational configuration on satisfaction of commercial banks account holders in Nairobi City County. The study confirmed the existence of a statistically significant relationship between customer centred organizational configuration and satisfaction of commercial banks account holders. Based on the findings the study rejected the null hypothesis and supported the alternative hypothesis that there is a relationship between customer centred organizational configuration and satisfaction. Customer centred organizational configuration had the greatest effect on customer satisfaction. This implies that if commercial banks intensify coordination of service delivery, employ customer centred business processes and ensure employees are customer oriented, account holders would be more satisfied with the services offered.

The third objective of the study was to determine the effect of technology based CRM on customer satisfaction. The study found that technology based CRM had a positive
and statistically significant effect on satisfaction of commercial banks accounts holders in Nairobi City County. Therefore, the proposition that technology based CRM had no significant effect on customer satisfaction was rejected. This could be attributed to commercial banks investment in modern technology that is easy to use, convenient, automated services and accessible as well as facilitating information flow and service quality.

The fourth objective assessed the moderating effect of demographic characteristics on the relationship between CRM and customer satisfaction among commercial banks account holders in Nairobi City County. The study results revealed that demographic characteristics (age, gender and income) have a statistically significant moderating effect on the relationship between CRM and customer satisfaction when individually treated as moderating variables. Therefore, the study proposition that demographic characteristics have no moderating effect on the relationship between CRM and satisfaction was not confirmed.

The fifth objective was to determine the mediating effect of service quality on the relationship between CRM and customer satisfaction of commercial banks account holders in Nairobi City County. The results failed to confirm the study expectation that service quality did not mediate the relationship between CRM and account holder satisfaction in commercial banks. Therefore, the study supported the alternative hypothesis that there exists a statistically significant mediating effect of service quality on the relationship between CRM and customer satisfaction. To compete effectively in the financial sector, commercial banks have to emphasize on a high degree of service reliability, assurance, tangibility empathy and responsiveness.
Commercial banks should also be responsive to the financial needs of account holders, resolve complaints effectively as well as rebrand their banking halls and services.

5.3: Conclusion

From the summary of findings, the study made several conclusions. The study concluded that CRM has an effect on satisfaction of commercial banks account holders in Nairobi City County, Kenya. However, this relationship was mediated by service quality and moderated by demographic characteristics. Further, the findings indicate that CRM variables namely; value based CRM, customer centred organizational configuration and technology based CRM had a positive and significant effect on satisfaction of account holders in commercial banks.

Regression analysis of the three independent variables indicated that an increase in each of them resulted in increase of account holder satisfaction. Customer centred organizational configuration had the strongest effect on account holder satisfaction. This indicates that account holders are happy with well coordinated functions as well as customer centred business processes and employees. Technology based CRM was the second strongest antecedent of CRM implying that commercial banks had successfully implemented automated banking services that were easy to use, convenient and accessible. Therefore, commercial bank managers who want to boost their account holder satisfaction should develop CRM strategies that focus on customer centred processes and technology that is easy to use, convenient and accessible. In addition, commercial banks should invest more in modern technology, rebranding of the banking hall and the entire establishment as well as customized services and personalized communication.
The study further concluded that the moderating effect of demographic characteristics (age, gender and income level) on the relationship between CRM and satisfaction of account holders was statistically significant. Age had a moderating effect on CRM and account holder satisfaction. The youngest account holders who were 18-26 years were found to be more satisfied with banking services than the older customers. Female account holders were found to be more satisfied than the male customers. Monthly income level of account holders had a strong mediating effect on the relationship between CRM and customer satisfaction. Commercial banks account holders with lower income (below Ksh.10,000) were more satisfied and vice versa, implying that demographic characteristics affect specific account holder groups and not the entire population served by commercial banks. This finding confirms the need for commercial banks to segment their markets using age, gender and income variables in order to develop personalized and differentiated services that meet account holders’ financial needs.

Service quality in the banking sector is a multidimensional construct. It was measured using the constructs; reliability, tangibility, assurance, empathy and responsiveness. The study concluded that service quality had a statistically significant mediating effect on the relationship between CRM and account holder satisfaction with commercial banking services. Tangibility which refers to appearance of physical facilities, employees and equipment had the greatest effect on account holders’ satisfaction whereas responsiveness had the least rating. Therefore, commercial banks need to be responsive to customer needs and complaints. Subsequently, the study elucidates the need for commercial banks to engage in service differentiation and market segmentation strategies based on demographic characteristics such as age,
gender and income level. Commercial banks should also strive to develop CRM strategies and personalized services that address the specific needs of account holders within their social groups as opposed to the entire country.

5.4 Contribution of the Study to Knowledge
The findings on joint effect of CRM on satisfaction and the mediating effect of service quality revealed a positive and significant relationship between the variables. This brings out new constructs that define these variables and their interrelationships. This study therefore contributes to the need for empirical research on CRM and satisfaction of commercial banks account holders in Kenya.

In addition, the study provides a conceptual framework that serves as a tool for predicting the relationship between CRM and satisfaction of customers in the banking sector. The study also addresses the gap in methodology in CRM and satisfaction in banking literature by applying the mixed methodology design which employs qualitative and quantitative methods that contribute to a comprehensive study. This provides researchers with an appropriate framework that incorporates quantitative and qualitative methods in CRM and satisfaction studies in the banking sector.

The study further contributes to new knowledge by conceptualizing variables previously studied differently such as CRM and customer satisfaction. It validates the mediating role of service quality on the relationship between CRM and satisfaction of account holders in commercial banks. In addition, the study found demographic characteristics did not moderate the relationship between CRM and satisfaction. However, age, gender and income variables independently moderated the relationship between CRM and satisfaction. Therefore, the study identifies some of the knowledge
gaps cited in the literature and contributes to the frontiers of knowledge related to CRM and satisfaction of account holders’ in the banking sector. Specifically, the study measured customer satisfaction in terms of positive experience with bank customers, preference for banks products and services, image of the bank and its accessibility that reveal the feelings of customers as opposed to customer loyalty, repeat purchase and advocacy measures used in previous studies to assess the behavior of customers.

Finally, this study makes significant contribution to the advancement of academic knowledge and theory on CRM and customer satisfaction in the context of the financial sector in an African setting. The literature reviewed clearly shows insignificant scholarly studies on CRM and satisfaction from the African banking sector. Therefore, this study contributes to literature on CRM and customer satisfaction by providing empirical evidence on the effect of CRM on account holder satisfaction.

5.5. Recommendations for Policy Implications

The results of this study have significant managerial implications to commercial bank managers that develop and implement CRM strategies. With regard to the study findings, commercial bank managers should enhance their CRM strategies in order to provide quality services that satisfy customers. In terms of technology, bank managers should implement self-services technologies that are user friendly, thus the need to train customers on mobile banking. Banks have invested heavily on technology but need to train customers and bank personnel on services such as mobile banking to increase accessibility and convenience of services.
Similarly, value based CRM was found to positively affect customer satisfaction. Therefore, banks should enhance their, personalized communication techniques; develop customized products and services that meet consumer needs. Commercial bank management should also focus on service quality improvement through appropriate customer centered organizational initiatives such as improvement on service processes, banking hall organization and employee skills development. Commercial banks need to collect information on customer needs, aspirations and profiles in order to design services that satisfy customer needs. Bank personnel should be engaged in a continuous learning process in order to broaden their knowledge on CRM and understanding of their customers.

Further, banks should also differentiate themselves from competitors by embracing customer centred business processes, rebranding their banking halls and maintaining a user friendly website for faster communication. Finally, commercial banks should formulate effective CRM and satisfaction programmes to ensure account holder retention and address issues related to customer dissatisfaction with services, multiple banking and bank switching.

Commercial banks in Kenya play a critical role in the economy by contributing significantly to the realization of Kenya Vision 2030 through savings, wealth mobilization and massive job creation. Consequently the Central Bank of Kenya and the government should develop policies relating to CRM, service quality and customer satisfaction in order to protect account holders, employees and the entire financial sector.
5.6 Suggestions for Further Research

The primary goal of this study was to establish the relationship between CRM and satisfaction of account holders in commercial banks in Nairobi City County in Kenya. The study did not take into account other factors such as environmental, organizational and other CRM factors that affect customer satisfaction. Future studies should find other antecedents of CRM and include other variables to further validate the current model.

The study found that moderating effect of demographic characteristics (age, gender, income) on the relationship between CRM and satisfaction of commercial banks account holders was statistically significant but there is need for further research to establish the moderating effect of other variables such as education, marital status, religion and social class. The study used reliability, assurance, tangibility, empathy and responsiveness as measures of service quality. Future researchers should seek to establish other measures of service quality and further elucidate other determinants of service quality. Therefore, there is need for further research using other mediating and moderating variables in the model so as to improve its statistical significance. Although this research met its objectives, there is need for future empirical studies to replicate this study in other service industries as well as in manufacturing and retail trade in developed and developing countries.
REFERENCES


Ernest & Young (2014). *Global consumer banking survey*. EGY Limited


World Retail Banking Survey (2012). Capgemini & Efma.


APPENDICES

Appendix I: Questionnaire Letter of Transmittal

Rael Nkatha Mwirigi,

P.O. Box 2927- 60200

Email- Raelmwirigi@yahoo.com

Dear Respondent,

I am a Doctor of Philosophy (PhD) marketing student at Kenyatta University. I am conducting a study on “Customer Relationship Management (CRM) and satisfaction of Commercial Banks account holders in Nairobi County, Kenya”. The results generated from this research will help commercial banks to develop CRM strategies that will enhance customer satisfaction.

Your participation in making this research study a success by filling the attached questionnaire will be highly appreciated. Your responses to this questionnaire will be treated with utmost confidentiality and will only be used for academic purposes.

If you have any questions concerning this questionnaire please feel free to contact the Chairman Department of Business Administration, Kenyatta University. P.O. Box 43844, Nairobi.

Thank you in advance for your willingness to participate in this research study.

Yours faithfully,

Rael Nkatha Mwirigi

D86/CTY/21720/2010
Appendix II: Questionnaire

This questionnaire consists of four parts. Part I requires the respondent to tick his/her demographic characteristics, part II covers Customer Relationship Management (CRM), part III covers service quality while part IV addresses the level of respondents’ satisfaction with his/her bank where he/she has an account.

Part 1: Demographic characteristics

Please tick (✓) the appropriate answer

1. Gender: Male □ Female □

   Age (years):
   - 18 – 26 □
   - 27 – 35 □
   - 36 – 44 □
   - 45 – 53 □
   - 54 – 62 □
   - Over 63 years □

2. Do you have a bank account? Yes □ No □

3. Indicate the name of your bank.

   ____________________________

4. State the period you have received services from your bank.

   - Less than 1 year □
   - 1-3 years □
   - 3-5 years □
   - over 5 years □

7. Do you have an account(s) in other banks? Yes □ No □

   If yes, specify the bank(s)

   ____________________________
8. Which banking services have you sought from your bank(s) in the last six months.

Tick all that is applicable.

- Cash withdrawal
- Cash Deposit
- Payment of bills
- Loans
- Payroll processing

Part II: Customer Relationship Management

Value Based CRM

Please indicate with a tick (✓) the extent to which the bank where you have your main account(s) maintains value based CRM using a scale of 1 = Not at all; 2 = To a little extent; 3 = To a Moderate extent; 4 = To a Large Extent and 5 = To a very large extent.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My bank has developed services that meet my financial needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>My bank uses customer views to design products and services</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3</td>
<td>The banks’ transaction requirements are designed to suit different customer segments.</td>
<td></td>
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<tr>
<td>4</td>
<td>My bank always informs me about new services.</td>
<td></td>
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<tr>
<td>5</td>
<td>My bank Communicates to me personally on policy changes.</td>
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<td></td>
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<tr>
<td>6</td>
<td>My bank provides personalized information whenever I seek for services.</td>
<td></td>
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<tr>
<td>7</td>
<td>My bank uses SMS to inform me about transactions in my account.</td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td>The bank has a free customer service helpline for 24 hours.</td>
<td></td>
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</tr>
<tr>
<td>9</td>
<td>My bank is dependable in handling my service complaints.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10</td>
<td>My bank makes quick response to complaints.</td>
<td></td>
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<tr>
<td>11</td>
<td>My bank has service failure resolution system.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>12</td>
<td>Complaints are addressed adequately.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Bank employees consider my relationship with the bank as</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
14 My bank treats me as a business partner.
15 I enjoy a close relationship with my bank.

16. Suggest one way in which your bank’s customer relationship focus can increase your satisfaction with the services it offers to you.

Customer Centered Organizational Configuration
Please indicate with a tick (✓) the extent to which the bank where you have your main account(s) maintains a customer centered organizational configuration using a scale of
1 = Not at all; 2 = To a little extent; 3 = To a moderate extent; 4 = To a Large extent and
5 = To a very large extent

<table>
<thead>
<tr>
<th>S/N</th>
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<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All the banking processes are designed to enhance quality service delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>My bank’s business processes focus on the account holder.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>My bank’s service processes are designed to minimize time wastage</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4</td>
<td>Bank policy requirements for financial services are easy to meet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5</td>
<td>My bank coordinates all departmental activities in order to enhance quality of customer experience.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6</td>
<td>My bank has maintained counters for specific customer segments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>7</td>
<td>The entire bank structure is centered on promoting account holders satisfaction with services offered.</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>8</td>
<td>The banks’ branch networks make services accessible anywhere in the country.</td>
<td></td>
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</tr>
<tr>
<td>9</td>
<td>The set up of the banking hall is customer friendly.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>10</td>
<td>Bank employees in all departments have adequate knowledge of all banking services.</td>
<td></td>
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<td></td>
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<tr>
<td>11</td>
<td>Bank employees in all departments can access up to date information collected by other departments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>12</td>
<td>Bank employees in all departments can guide customers on sound financial investments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>13</td>
<td>My bank management has adopted an open door policy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>14</td>
<td>The bank’s customer care desk is strategically placed to attract customers’ attention.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>15</td>
<td>The bank has a counter for people with different abilities (disabled).</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>16</td>
<td>The bank counters are well labeled to guide customers.</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>17</td>
<td>The bank layout enables bank staff and customers to interact freely in the banking hall.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

18. State one recommendation on how your bank’s customer centered configuration can increase your satisfaction with the services it offers to you.
Technology based CRM

Please use a tick (✓) to rate the performance of your bank’s technology based CRM in terms of the listed dimensions where 5 = To a very great extent; 4= To a great extent; 3 = To a moderate extent; 2 = To a little extent; 1 = Not at all

<table>
<thead>
<tr>
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<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Technology provided by my bank is user friendly.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td>I can easily obtain an accurate bank statement using my mobile phone.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>My bank’s mobile banking is personalized.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4</td>
<td>I can withdraw money from my bank account through my mobile phone.</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>My banks’ ATMs are conveniently located.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6</td>
<td>Automation of banking services makes it possible to access banking services for 24 hours.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Technology helps my bank to provide convenient operating hours.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td>I find it more convenient to use mobile banking than interacting with bank employees.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>9</td>
<td>Technology enables my bank to provide information on all my financial transactions.</td>
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<td></td>
</tr>
<tr>
<td>10</td>
<td>My banks’ ATM provides different range of services.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>11</td>
<td>ATM cards are compatible with other ATM platforms.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>12</td>
<td>ATM waiting time is reasonable.</td>
<td></td>
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</tr>
<tr>
<td>13</td>
<td>The bank shares information on new services via my cell phone.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>I find it easy to access all information on my bank from its website.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Bank documents (fliers, forms) are placed where customers can easily access them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Employees at my bank have access to up to date customer information required for managing customer transactions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17. Please give one recommendation on how your bank’s technology based CRM can increase your satisfaction with the services it offers to you.
**Part III: Service Quality**

Please use a tick (√) to rate the extent to which the bank where you have your main account(s) have maintained quality service delivery using a scale of 5 = To a very great extent; 4 = To a great extent; 3 = To a moderate extent; 2 = To a little extent; 1 = Not at all

<table>
<thead>
<tr>
<th>S/N</th>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My bank provides service requests as promised.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>All the information received from my bank is reliable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>My bank upholds confidentiality in my transactions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>My bank delivers error free account statements.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>My bank performs services right the first time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>My bank uses modern equipment (computers, ATMS).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>My bank’s physical facilities are visually appealing (furniture, offices, car park).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Materials associated with bank services are visually appealing (fliers, forms).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Employees at the bank are well groomed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>The bank employees are consistently courteous to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Employees at my bank understand my specific financial needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>My bank cares about my personal problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>My bank provides convenient operating hours for all customers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Bank employees are willing to pay attention to me whenever I make inquiries.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>My bank provides adequate security for its customers within its premises.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>The behaviors of bank employees always instill confidence in me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Bank employees have knowledge to answer all my questions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>I feel safe doing all my financial transactions with my bank.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Bank employees are never too busy to quickly respond to my queries.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Bank employees provide prompt services to customers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Bank employees rectify service failure immediately it occurs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>My bank employees timely service delivery ensures customer expectations are met.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

23. Please give one recommendation on how your bank can improve its service delivery so that it can increase your level of satisfaction with banking services.
Part IV: Customer Satisfaction

Please use a tick (√) to rate the extent to which the bank where you have your main account(s) have maintained your satisfaction with the services it offers to you using a scale of 5 = To a very great extent; 4 = To a great extent; 3 = To a moderate extent; 2 = To a little extent; 1 = Not at all

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I am satisfied with my bank personnel’s banking skills and knowledge.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Bank staff response to all my queries is excellent.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Bank personnel always understand and satisfy my financial needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I am satisfied with the variety of services offered by my bank.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I am satisfied with the interest rates charged by my bank.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I am satisfied with the bank service charges.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I am satisfied with the service processes at my bank.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>I am satisfied with the queuing time at my banking.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I am satisfied with the information I receive from my bank (new products, account statements).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Am satisfied with the banks social responsibility (E.g Education sponsorship for needy, environmental protection).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I am satisfied with media reports on my bank.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>I am satisfied with my bank’s technology based CRM excellence.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I believe my bank will satisfy my future financial needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>My banks network (e.g. branches, ATMs, agents) make it accessible in all the entire country</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>I am satisfied with the location of the banks service systems (ATMs, branches).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. Please make one recommendation on how your bank can increase your level of satisfaction with the services it offers to you.

__________________________________________________________________________

Thank you for taking your time to fill this questionnaire.
### Appendix III: Value Based CRM Communalities

<table>
<thead>
<tr>
<th>Statement</th>
<th>Initial</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>My bank has developed services that meet my financial needs</td>
<td>1.000</td>
<td>.662</td>
</tr>
<tr>
<td>My bank uses customer views to design products and services</td>
<td>1.000</td>
<td>.574</td>
</tr>
<tr>
<td>The banks’ transaction requirements are designed to suit different customer segments.</td>
<td>1.000</td>
<td>.593</td>
</tr>
<tr>
<td>My bank always informs me about new services.</td>
<td>1.000</td>
<td>.675</td>
</tr>
<tr>
<td>My bank Communicates to me personally on policy changes.</td>
<td>1.000</td>
<td>.565</td>
</tr>
<tr>
<td>My bank provides personalized information whenever I seek for services.</td>
<td>1.000</td>
<td>.468</td>
</tr>
<tr>
<td>My bank uses SMS to inform me about transactions in my account.</td>
<td>1.000</td>
<td>.603</td>
</tr>
<tr>
<td>The bank has a free customer service helpline for 24 hours.</td>
<td>1.000</td>
<td>.630</td>
</tr>
<tr>
<td>My bank is dependable in handling my service complaints.</td>
<td>1.000</td>
<td>.515</td>
</tr>
<tr>
<td>My bank makes quick response to complaints.</td>
<td>1.000</td>
<td>.666</td>
</tr>
<tr>
<td>My bank has service failure resolution system.</td>
<td>1.000</td>
<td>.476</td>
</tr>
<tr>
<td>Complaints are addressed adequately.</td>
<td>1.000</td>
<td>.588</td>
</tr>
<tr>
<td>Bank employees consider my relationship with the bank as a priority.</td>
<td>1.000</td>
<td>.728</td>
</tr>
<tr>
<td>My bank treats me as a business partner.</td>
<td>1.000</td>
<td>.744</td>
</tr>
<tr>
<td>I enjoy a close relationship with my bank</td>
<td>1.000</td>
<td>.779</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

Source: Survey Data (2016)
### Appendix IV: Customer centered organization configuration Communalities

<table>
<thead>
<tr>
<th>Statement</th>
<th>Initial</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>All the banking processes are designed to enhance quality service delivery</td>
<td>1.000</td>
<td>.646</td>
</tr>
<tr>
<td>My bank’s business processes focus on the account holder.</td>
<td>1.000</td>
<td>.720</td>
</tr>
<tr>
<td>My bank’s service processes are designed to minimize time wastage</td>
<td>1.000</td>
<td>.647</td>
</tr>
<tr>
<td>Bank policy requirements for financial services are easy to meet.</td>
<td>1.000</td>
<td>.499</td>
</tr>
<tr>
<td>My bank coordinates all departmental activities in order to enhance quality of customer experience.</td>
<td>1.000</td>
<td>.605</td>
</tr>
<tr>
<td>My bank has maintained counters for specific customer segments.</td>
<td>1.000</td>
<td>.419</td>
</tr>
<tr>
<td>The entire bank structure is centered on promoting account holders satisfaction with services offered.</td>
<td>1.000</td>
<td>.630</td>
</tr>
<tr>
<td>The banks’ branch networks make services accessible anywhere in the country.</td>
<td>1.000</td>
<td>.378</td>
</tr>
<tr>
<td>The set up of the banking hall is customer friendly.</td>
<td>1.000</td>
<td>.614</td>
</tr>
<tr>
<td>Bank employees in all departments have adequate knowledge of all banking services.</td>
<td>1.000</td>
<td>.582</td>
</tr>
<tr>
<td>Bank employees in all departments can access up to date information collected by other departments.</td>
<td>1.000</td>
<td>.523</td>
</tr>
<tr>
<td>Bank employees in all departments can guide customers on sound financial investments.</td>
<td>1.000</td>
<td>.527</td>
</tr>
<tr>
<td>My bank management has adopted an open door policy.</td>
<td>1.000</td>
<td>.569</td>
</tr>
<tr>
<td>The bank’s customer care desk is strategically placed to attract customers’ attention.</td>
<td>1.000</td>
<td>.514</td>
</tr>
<tr>
<td>The bank has a counter for people with different abilities (disabled).</td>
<td>1.000</td>
<td>.304</td>
</tr>
<tr>
<td>The bank counters are well labeled to guide customers.</td>
<td>1.000</td>
<td>.421</td>
</tr>
<tr>
<td>The bank layout enables bank staff and customers to interact freely in the banking hall.</td>
<td>1.000</td>
<td>.505</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

Source: Survey Data (2016)
## Appendix V: Technology Based CRM Communalities

<table>
<thead>
<tr>
<th>Statement</th>
<th>Initial</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology provided by my bank is user friendly.</td>
<td>1.000</td>
<td>.907</td>
</tr>
<tr>
<td>I can easily obtain an accurate bank statement using my mobile phone.</td>
<td>1.000</td>
<td>.670</td>
</tr>
<tr>
<td>My bank’s mobile banking is personalized.</td>
<td>1.000</td>
<td>.658</td>
</tr>
<tr>
<td>I can withdraw money from my bank account through my mobile phone.</td>
<td>1.000</td>
<td>.630</td>
</tr>
<tr>
<td>My banks’ ATMs are conveniently located.</td>
<td>1.000</td>
<td>.499</td>
</tr>
<tr>
<td>Automation of banking services makes it possible to access banking services for 24 hours.</td>
<td>1.000</td>
<td>.715</td>
</tr>
<tr>
<td>Technology helps my bank to provide convenient operating hours.</td>
<td>1.000</td>
<td>.733</td>
</tr>
<tr>
<td>I find it more convenient to use mobile banking than interacting with bank employees.</td>
<td>1.000</td>
<td>.651</td>
</tr>
<tr>
<td>Technology enables my bank to provide information on all my financial transactions.</td>
<td>1.000</td>
<td>.632</td>
</tr>
<tr>
<td>My banks’ ATM provides different range of services.</td>
<td>1.000</td>
<td>.581</td>
</tr>
<tr>
<td>ATM cards are compatible with other ATM platforms.</td>
<td>1.000</td>
<td>.498</td>
</tr>
<tr>
<td>ATM waiting time is reasonable.</td>
<td>1.000</td>
<td>.617</td>
</tr>
<tr>
<td>The bank shares information on new services via my cell phone.</td>
<td>1.000</td>
<td>.605</td>
</tr>
<tr>
<td>I find it easy to access all information on my bank from its website.</td>
<td>1.000</td>
<td>.590</td>
</tr>
<tr>
<td>Bank documents (fliers, forms) are placed where customers can easily access them.</td>
<td>1.000</td>
<td>.545</td>
</tr>
<tr>
<td>Employees at my bank have access to up to date customer information required for managing customer transactions.</td>
<td>1.000</td>
<td>.593</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

Source: Survey Data (2016)
### Appendix VI: Service Quality

<table>
<thead>
<tr>
<th>Statement</th>
<th>Initial</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>My bank provides service requests as promised.</td>
<td>1.000</td>
<td>.625</td>
</tr>
<tr>
<td>All the information received from my bank is reliable.</td>
<td>1.000</td>
<td>.693</td>
</tr>
<tr>
<td>My bank upholds confidentiality in my transactions.</td>
<td>1.000</td>
<td>.658</td>
</tr>
<tr>
<td>My bank delivers error free account statements.</td>
<td>1.000</td>
<td>.493</td>
</tr>
<tr>
<td>My bank performs services right the first time.</td>
<td>1.000</td>
<td>.647</td>
</tr>
<tr>
<td>My bank uses modern equipment (computers, ATMs).</td>
<td>1.000</td>
<td>.601</td>
</tr>
<tr>
<td>My bank’s physical facilities are visually appealing (furniture, offices, car park).</td>
<td>1.000</td>
<td>.729</td>
</tr>
<tr>
<td>Materials associated with bank services are visually appealing (fliers, forms).</td>
<td>1.000</td>
<td>.717</td>
</tr>
<tr>
<td>Employees at the bank are well groomed.</td>
<td>1.000</td>
<td>.678</td>
</tr>
<tr>
<td>The bank employees are consistently courteous to me.</td>
<td>1.000</td>
<td>.582</td>
</tr>
<tr>
<td>Employees at my bank understand my specific financial needs.</td>
<td>1.000</td>
<td>.732</td>
</tr>
<tr>
<td>My bank cares about my personal problems.</td>
<td>1.000</td>
<td>.664</td>
</tr>
<tr>
<td>My bank provides convenient operating hours for all customers.</td>
<td>1.000</td>
<td>.536</td>
</tr>
<tr>
<td>Bank employees are willing to pay attention to me whenever I make inquiries.</td>
<td>1.000</td>
<td>.654</td>
</tr>
<tr>
<td>My bank provides adequate security for its customers within its premises.</td>
<td>1.000</td>
<td>.459</td>
</tr>
<tr>
<td>The behaviors of bank employees always instill confidence in me.</td>
<td>1.000</td>
<td>.700</td>
</tr>
<tr>
<td>Bank employees have knowledge to answer all my questions.</td>
<td>1.000</td>
<td>.685</td>
</tr>
<tr>
<td>I feel safe doing all my financial transactions with my bank.</td>
<td>1.000</td>
<td>.631</td>
</tr>
<tr>
<td>Bank employees are never too busy to quickly respond to my queries.</td>
<td>1.000</td>
<td>.599</td>
</tr>
<tr>
<td>Bank employees provide prompt services to customers.</td>
<td>1.000</td>
<td>.655</td>
</tr>
<tr>
<td>Bank employees rectify service failure immediately it occurs.</td>
<td>1.000</td>
<td>.639</td>
</tr>
<tr>
<td>My bank employees timely service delivery ensures customer expectations are met.</td>
<td>1.000</td>
<td>.651</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

Source: Survey Data (2016)
### Appendix VII: Customer Satisfaction  Communalities

<table>
<thead>
<tr>
<th>Statement</th>
<th>Initial</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am satisfied with my bank personnel’s banking skills and knowledge.</td>
<td>1.000</td>
<td>.712</td>
</tr>
<tr>
<td>Bank staff response to all my queries is excellent.</td>
<td>1.000</td>
<td>.729</td>
</tr>
<tr>
<td>Bank personnel always understand and satisfy my financial needs.</td>
<td>1.000</td>
<td>.768</td>
</tr>
<tr>
<td>I am satisfied with the variety of services offered by my bank.</td>
<td>1.000</td>
<td>.576</td>
</tr>
<tr>
<td>I am satisfied with the interest rates charged by my bank.</td>
<td>1.000</td>
<td>.752</td>
</tr>
<tr>
<td>I am satisfied with the bank service charges.</td>
<td>1.000</td>
<td>.796</td>
</tr>
<tr>
<td>I am satisfied with the service processes at my bank.</td>
<td>1.000</td>
<td>.687</td>
</tr>
<tr>
<td>I am satisfied with the queuing time at my banking.</td>
<td>1.000</td>
<td>.646</td>
</tr>
<tr>
<td>I am satisfied with the information I receive from my bank (new products, account statements).</td>
<td>1.000</td>
<td>.521</td>
</tr>
<tr>
<td>Am satisfied with the banks social responsibility (E.g Education sponsorship for needy, environmental protection).</td>
<td>1.000</td>
<td>.503</td>
</tr>
<tr>
<td>I am satisfied with media reports on my bank.</td>
<td>1.000</td>
<td>.542</td>
</tr>
<tr>
<td>I am satisfied with my bank’s technology based CRM excellence.</td>
<td>1.000</td>
<td>.635</td>
</tr>
<tr>
<td>I believe my bank will satisfy my future financial needs.</td>
<td>1.000</td>
<td>.575</td>
</tr>
<tr>
<td>My banks network (e.g. branches, ATMs, agents) make it accessible in all the entire country</td>
<td>1.000</td>
<td>.718</td>
</tr>
<tr>
<td>I am satisfied with the location of the banks service systems (ATMs, branches).</td>
<td>1.000</td>
<td>.670</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

Source: Survey Data (2016)
## Appendix VIII: Value Based CRM Eigen values

Total Variance of Value Based CRM Explained

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigen values</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
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Extraction Method: Principal Component Analysis

Source: Survey Data (2016)
### Appendix IX: Customer Centered Organizational Configuration Eigen Values

Total Variance of Customer Centered Organizational Configuration Explained

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Extraction Method: Principal Component Analysis

Source: Survey Data (2016)
# Appendix X: Technology Based CRM Eigen Values

Total Variance of Technology Based CRM Explained

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Extraction Method: Principal Component Analysis

Source: Survey Data(2016)
## Appendix XI: Service Quality Eigen Values

### Total Variance Service Quality Explained

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Extraction Method: Principal Component Analysis

Source: Survey Data (2016)
## Appendix XII: Customer Satisfaction Eigen Values

Total Variance of customer satisfaction Explained

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Extraction Method: Principal Component Analysis.
Source: Survey Data (2016)
Appendix XIII : NACOSTI Research Authorization

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Ref. No. NACOSTI/P/16/97369/13085

Date: 12th August, 2016

Rael Ndatha Mwirigi
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Customer relationship management and satisfaction of commercial banks account holders in Nairobi County Kenya,” I am pleased to inform you that you have been authorized to undertake research in Nairobi County for the period ending 11th August, 2017.

You are advised to report to the Chief Executive Officers of selected Commercial Banks, the County Commissioner and the County Director of Education, Nairobi County before embarking on the research project.

On completion of the research, you are expected to submit two hard copies and one soft copy in pdf of the research report/thesis to our office.

Boniface Wanyama
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The Chief Executive Officers
Selected Commercial Banks.

The County Commissioner -
Nairobi County.
Appendix XIV: Research Permit

This is to certify that:
Ms. Rael Nkatha Mwirigi
of Kenyatta University, 0-60200
MERU, has been permitted to conduct research in Nairobi County
on the topic: Customer Relationship Management and Satisfaction of Commercial Banks Account Holders in Nairobi County, Kenya
for the period ending:
11th August, 2017

National Commission for Science, Technology & Innovation
Director General

[Signature]