MOBILE BANKING SERVICE QUALITY, CUSTOMER PERCEIVED VALUE, CORPORATE IMAGE AND CUSTOMER RETENTION IN THE KENYAN BANKING INDUSTRY

BY

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DECLARATION

Declaration by Candidate

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DEDICATION

This work is dedicated to everyone with humble beginnings both educationally and financially. Those who believe that a person can come up in life with sheer hard work and dedication.

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ABSTRACT

Customer retention is increasingly becoming an important managerial issue, especially in this era which is characterized by high levels of competition and assertive customers who make stay or switch decisions guided by their rational and emotional influences. Moreover, customers are quality conscious, value driven and get attracted by strong and positive corporate images. To date, there is limited evidence of studies that investigated the effects of mobile banking service quality, perceived corporate image, customer perceived value and customer retention constructs in a single framework, hence, the study seeks to fill the gap. The purpose of this study was to examine the effect of; mobile banking service quality, customer perceived value and perceived corporate image on customer retention. Specific objectives were to examine the effect of; mobile banking service quality, customer perceived value perceived corporate image on customer retention, the mediating effect of customer perceived value on the relationship between mobile banking service quality and customer retention, the moderating effect of perceived corporate image on the relationship between; mobile banking service quality and customer perceived value, mobile banking service quality and customer retention and customer perceived value and customer retention. Finally, the study sought to determine the moderating effect of perceived corporate image on the indirect relationship between mobile banking service quality and customer retention via customer perceived value. The study was guided by the customer value/retention model, the 'leaky bucket theory' of marketing and the MS-QUAL model. Positivism research philosophy and explanatory research design were adopted, employing Multistage, simple random and systematic sampling techniques in collecting data from a sample size of 400 university staff drawn from two public and two private universities based in Nairobi County who are consumers of mobile banking services, using a self-administered questionnaire. Hierarchical and multiple regression models using Hayes Process macro were used to analyze data obtained and to test the hypotheses. The study found that; mobile banking service quality (β= 0.565, p = 0. 000), perceived customer value (β= 0.363, p = 0.000), perceived corporate image (β = 0.142, p = 0.002), significantly affect customer retention. Additionally, the results show that customer perceived value mediates the relationship between mobile banking service quality and customer retention (β =. 193, CI = .127, .266). Moreover, the study established that Perceived corporate image moderates the link between; mobile banking service quality and customer perceived value (β = -.091, p =.039), the link between mobile banking service quality and customer retention (β = -.112, p = .032) and the link between customer perceived value and customer retention (β =.139, p = 0.007).Finally, perceived corporate image was found to moderate the indirect relationship between mobile banking service quality and customer retention via customer retention at all the three levels of perceived corporate image (low level b =.114, CI =.024, .224, mean level b =.163, CI =.100, .240 and high level b = .187, CI =.100, .296). This study concludes that, customers will remain committed to patronize a bank whose services are considered to be of high quality, high value, and one having high corporate image. The study contributes to knowledge by revealing customer perceived value mediates the relationship between mobile banking service quality and customer retention. Additional contribution is evident in the moderation model of perceived corporate image between the variables of the study. Finally, the study brings new insights that perceived corporate image moderates the indirect links between mobile banking service quality via customer perceived value, thus, provides greater predictive power than when testing the direct, mediating and moderating effects alone. Bank management and policy makers should; develop quality assurance policies, devise value-centered strategies that focus on customer perceived value, and device promotional strategies that project the banks image that is attractive, caring and friendly in order to enhance customer retention rates. The study adopted a cross-sectional research design where all data was collected at one point in time, which makes it difficult to generalize the findings and account for changes that may occur in the mobile banking technologies which may tilt the customer's attitude and perception of quality, value and image. Future research may, therefore, consider using longitudinal designs to seek more evidence for the assumptions that have been made in this study.

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ABBREVIATIONS

ADC:	Alternative Delivery Channel
ATM:	Automated Teller Machine
CBK:	Central Bank of Kenya
CPV:	Customer perceived value
CRN:	Customer Retention
E-RECS-QUAL:	E-recovery service quality scale
E-S-QUAL:	E-core Service Quality
ETC:	Electronic Toll Collection
GOK:	Government of Kenya
GSM:	Global System for Mobile Communication
IT:	Information Technology
ICT:	Information and communication technology
KBA:	Kenya Bankers' Association
M-Banking:	Mobile Banking
MBSQ:	Mobile Baking Service Quality
M-S-QUAL:	M-Baking Service Quality
NACOSTI:	National Commission for Science, Technology and Innovation
PCI:	Perceived Corporate Image
S-D:	Service-Dominant
SMS:	Short Messaging Services
SERVQUAL:	Service Quality
SSTQUAL:	Self-Service Technology service quality
USSD:	Unstructured Supplementary Services Data
USISF :	User Satisfaction of the Information Service Function
UK:	United Kingdom

OPERATIONAL DEFINITION OF TERMS

Customer Perceived Value: The customer's perceived benefits from the service in relation to the customer's perceived sacrifice needed in order to gain these benefits. (Angel Moliner Tena et al., 2006)

Customer Retention (CRN) : The future propensity of a customer to stay with the service provider Ranaweera and Prabhu, (2003b)

Mobile banking (m-banking): Provision and availment of banking and financial services through the help of mobile telecommunication devices. The scope of offered services may include facilities to conduct bank and stock market transactions, administer accounts and to access customized information. (KBA, 2014)

Mobile Banking Service - Efficiency: mobile banking service is simple to use, and requires minimum efforts. Also the customer can use anywhere anytime banking services with speed. Surendra, (2015)

Mobile Banking Service - Fulfillment: The extent to which an organization fulfils its commitments, listens to the customers and provides clear, understandable information for them Self-Service Technology service quality (SSTQUAL) - Technology-based self-service banking such as mobile banking applications, Automated Teller Machines(ATM) {Citation}

Mobile Banking Service Quality: Quality of access to mobile banking services and facilities offered by financial institutions such as account-based savings, payment transactions and other products by use of an electronic mobile device

Mobile banking transaction: Undertaking banking transactions using mobile phones by bank customers that involve accessing/credit/debit to their accounts (Aggarwal, 2014)

Perceived Corporate Image: The overall impression made on the minds of customers in which ideas, feelings and previous experiences with an organization are stored in the memory and transformed into meaning. (Çek, 2016).

Privacy: The degree to which the customer believes mobile banking is safe from intrusion and personal information is protected.

Security/privacy: Parasuraman *et al.*, (2005), defined security/privacy as the autonomy from danger, risk or doubt. Considering the security aspect in the context of M- Banking, it is associated with the safe processing of M-banking transactions, in addition to preventing unauthorized access to bank accounts and personal information (Yang et al., 2004).

System availability: The correct technical functioning of the site.

The Kenyan banking industry: Entails the central banking, commercial banks, mortgage finance companies, licensed deposit taking microfinance, the Post Office Savings Bank and deposit-taking licensed savings and credit cooperative organizations (SACCOs). (KBA, 2014)

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter presents the background of the study. It entails the background of the study, the statement of the problem, objectives of the study, study hypothesis, significance of the study, and finally the scope of the study.

1.1 Background of the Study

At the centre of the marketing concept in today's turbulent and highly competitive business environment is the idea of maintenance and expansion of relational exchanges that reinforces customer retention. Retention concerns services offered according to customers' demands or expectations, intending to establish permanent relations or create and deliver additional value to them Kiki and Ogutu, (2021). Hence, the strength of the service provider's competitiveness is largely dependent on the degree to which it can build mutually beneficial relationships with its customers. This relationship will build depending on the organization's ability to retain these customers. Mandal, (2016). Customer retention thus serves as a differentiator of any service provider from the competition, Kiki and Ogutu, (2021).

Customer retention refers to keeping a client's business rather than have the client use competitors' services or products. Repeat customers are people who buy from you again and again. Customer retention embodies repeated behaviour and reflects relationship continuation. Customer retention is an essential part of customer relationship management and organizations must take this into account Kiki and Ogutu, (2021). The longer a customer stays with an organization the more utility the customer generates to the organization. Maintaining high levels of satisfaction will not, by itself, ensure customer loyalty. Organizations lose satisfied customers who have relocated, retired, or no longer need certain services. As a consequence, retaining customers becomes a priority.

In the banking context, it is traditionally held that satisfied customers are less likely to switch banks, however, studies have shown that even satisfied customers do not hesitate to switch banks if a competitor offers better products that are unique and meet their specific needs. The uniqueness of these products may be identified by qualities such as speed, ease, design, accessibility, and the price of the product Gibson and Halsey, (2017). Hence, in such a highly competitive banking environment, banks face the challenge of retaining existing customers and attracting new ones Khan and Rizwan, (2014).

It is generally agreed that customer retention is also an important managerial issue for service provider organizations because it is associated with an increase in the organization’s revenue and reduction in cost Woisetschläger *et al*., (2011). A large body of evidence suggests that the cost of acquiring new customers has led to the banks shifting their focus from just increasing their customer base to retaining existing customers Farah *et al*., (2018). It has widely been reported that the cost of acquiring new customers is relatively higher than retaining existing customers due to the expenses that banks incur on advertising and promotion to influence their purchase behaviour (Alshurideh, 2016b; F.F. Reichheld & Dawkins, 1990; Frederick F. Reichheld, 1996). Meanwhile, the profitability potential of retaining existing customers is significantly high. Therefore, banks must keep customers satisfied and retained to ensure their success Alshurideh, (2016a). It has also been demonstrated that it is economically more beneficial to retain loyal customers than recruiting new ones Khan and Rizwan, (2014).

Sunil Gupta *et al*., (2004) established that a 5% increase in customer retention equity can increase company profit by 5% to 95% across several industries, results which were also confirmed by Hanks (2007) who established that a 5% increase in retention could result in a 75% increase in profitability in the hospitality industry.

Many studies have long been conducted concerning the cost of customer retention, Among the early studies is Reichheld, (1996) which established that it costs five times more to create a new customer than to retain an existing customer. Further support is given by (Rakeullah, 2020) who argued that 25% to 95% net present value of customers could be enhanced in broader business environments by only five per cent enhancements of customer retention.

Apart from the cost of new customer acquisition, service providers also expend their resources in customer management. Studies have shown that retaining the existing customers plays a key role in cost reduction. For example, Lax, (2016), established that the cost of servicing existing customers is lower than the cost of managing new customers. This is because most of the cost of servicing new customers is fixed, while there are additional costs such as onboarding-related costs specifically incurred because of new customers. He noted that even after incurring these costs, half of these new customers may leave within the first 90 days of becoming customers of the bank. The cost also increases when the service providers offer cash rewards to the new customers in a bid to win them over. Therefore, banks' failure to understand and establish measures to retain existing customers will be a disastrous proposition. In this respect, therefore, banking organizations' success depends on their ability to quickly respond to market changes with more efficient customer retention strategies.

There has been an increased recognition that more attention needs to be paid to customer retention and more so, it has become critically important for firms to search for the drivers of customer retention. Previous studies examined several factors and predictors of customer retention in different industry contexts. However, the nature of these factors tends to be different from industry to industry. In the banking industry, Service quality is one of the critical success factors that influence the competitiveness of an organization. A bank can differentiate itself from competitors by providing high-quality service Surendra, (2015). Service quality has been defined by Sagib and Zapan, (2014) as "customer's overall assessment of a service". While Bitner, (1990) and Boonlertvanich, (2019) refer to service quality as "the customer's overall impression of the relative inferiority and superiority of the organization and its services" Zeithaml (2002) argued that only the customers judge the quality, all the other judgments being irrelevant. In their assessment, Koli et al., (2019) established that practitioners define service quality in terms of key dimensions that customers use while evaluating the services. Thus, service quality is sensitive to culture, situation, time, and industry. This affirms the revelations by Seth *et al*., (2005), in their review of various service quality models, that the service quality outcome and measurement are primarily dependent on the type of service setting, situation, time and need. Additionally, they established that customer's expectations towards particular services are changing with respect to factors, such as time, increase in the number of encounters with particular service, competitive environment etc.

There have been a large array of improvements achieved in the banking sector over the last few years and mobile banking (also known as m-banking) is one of the modern means of delivering banking services, hence, mobile banking service quality has been established to be a key driver to customer retention. A number of definitions of mobile banking service quality have been proposed; Parasuraman *et al*., (2005), defines mobile banking service quality as the extent to which customers' perceptions of mobile banking service meet and/or exceed their expectations. Parasuraman (2000), defines service quality as "the differences between customer expectations and perceptions of service". Service quality is also known as attitude which is formed on the basis of long term evaluation of the service quality and attitudes considered as parallel constructs, Arcand *et al*., (2017). Lin, (2013) describes mobile banking service quality as a global consumer judgment of the quality and excellence of mobile content delivery in the context of m-banking.

Many studies have demonstrated a strong and consistent link between mobile banking service quality and retention. Arcand *et al*., (2017) established that mobile banking service quality dimensions positively influences customer's trust leading to a long term customer commitment. Further support is given by the works of Sampaio *et al*., (2017) through which the authors concluded that the benefits offered by mobile banking services are positively related to customer satisfaction which has culminated in more repeat purchases. In general, studies have demonstrated that quality services are important determinants that inform a customer's decision to having a long-lasting commitment toward a firm's services or switch to its competitors Peltonen, (2016).

Another customer retention determinant is customer perceived value. Customer perceived value has been described as the benefits or the utility stemming from a good, service or relationship as perceived by a customer based on what was received and what was given (Abu Bakar, 2015). Customer perceived value is the outcome of a cognitive comparison process where the usefulness of the core solution is evaluated based on the customer's perception of the benefits received and the sacrifices made. From the viewpoint of service-dominant (S-D) logic, it has been argued that service value is fundamentally derived from and determined in use, (Tai, 2011; Vargo et al., 2017; Vargo & Lusch, 2010). It is argued so because service value is co-created through dynamic interaction with customers, firms can provide value propositions but the perceived value of a service is determined by the customer on the basis of value-in-use. In service-dominant settings such as banking, it is perceived that customers are more willing to keep their relationships with their current service providers if they are being attended to with elevated value (Tai, 2011). There is a clear demonstration, therefore, that customers attach value to an offering depending on its perceived ability to solve their problems or fulfil their needs.

Previous studies have also shown that customer perceived value is a key determinant of customer retention, for instance (Prasad, 2015) established that customer perceived value influences consumers' re-purchase intentions and that their purchase experiences are spread to others (word-of-mouth intentions). This suggestion supports the claims of Chen (2008) that perceived value is a better predictor of customers' willingness to recommend to others, than satisfaction.

Literature also reveals that in highly competitive sectors like banking, a bank's corporate image represents an asset which allows firms to differentiate and increase their success chances through customer retention. Bravo et al., (2009) established that firms with a strong corporate image in the market succeed in attracting and maintaining customers, neutralizing the competitors' actions and increasing their profits. Corporate image influences the customer evaluation of services. Rehman (2012) claimed that firm physical and behavioural attributes are related to corporate image such as name of business, variety related to business products and services. The impression of the corporate image attract the more customer toward corporate products. Minkiewicz et al. (2011) found that corporate image is the pure result of the people feelings, beliefs, experiences, thoughts, impressions and knowledge that people have about the organization.

1.1.1 The Kenyan Banking Industry

The Kenyan banking industry entails the central banking, commercial banks, mortgage finance companies, licensed deposit taking microfinance, the Post Office Savings Bank and deposit-taking licensed savings and credit cooperative organizations (SACCOs). The Central Bank of Kenya (CBK) is the primary regulator of the banking industry. The primary classification of banks in Kenya is by ownership. Some banks belong to local individuals/companies while others belong to foreign individuals or organizations. Another general classification of banks is by nature, that is, microfinance banks and commercial banks. The Central Bank of Kenya which governs banks further classifies commercial banks based on their assets. Tier 1 banks are large banks that have hundreds of billions in assets and are the top banks in Kenya. Tier 2 banks are medium-sized banks while tier 3 consists of small banks.

Currently there are 28 domestic and 14 foreign commercial banks with branches, agencies, and other outlets throughout the country; eleven licensed deposit taking microfinance institutions; a Post Office Savings Bank with a large network of branches around the country; and about 200 deposit-taking licensed savings and credit cooperative organizations (SACCOs) with a membership of over 3 million Kenyans. However, the banking sector is essentially dominated by seven tier 1 commercial banks, namely Equity Bank, Kenya Commercial Bank, Cooperative Bank Absa Bank Kenya (formerly Barclays Bank of Kenya), Standard Chartered Bank, Diamond Trust Bank, and Commercial Bank of Africa. In addition, smaller banks have emerged and experienced tremendous growth in recent years.

The emerging wave of technology driven economies has found the Kenya's banking industry inevitably unable to resist technological indulgence. This has led to a boom in the development of banking technologies among them is mobile banking technology which has laid down a strong base for convenient low cost banking, and growth of mobile phone use even in rural Kenya. Mobile banking has moved quickly beyond being simply online banking using a smart phone.

The introduction of mobile banking in Kenya was in the early 2000. Co-operative Bank pioneered mobile banking way back in 2004 by enabling customers to access their accounts and transact using their mobile phones CBK, (2017). It offers services such as balance enquiries, mini-statements, SMS alerts on credit and debit transactions to an account, pay utility bills and funds transfer. Standard Chartered Bank launched its mobile banking in 2009 in seven markets in Africa and subsequently other banks have adopted the technology.

The Kenyan banks offers mobile banking in a number of ways, a number of the banking services are offered on a unique, user-friendly platform called Unstructured Supplementary Services Data (USSD) and is only available on GSM carrier networks which enable customers to access banking in real time, anywhere in the world, through their mobile phones. The platform is a convenient menu-driven application that is not dependent on specific customer handsets and does not need to be downloaded. Absa Bank Kenya's m-banking platform is known as 'hello money'. It allows customers to carry out their banking using their mobile phones and access banking services anytime/anywhere on the move. Equity bank's m-banking platform known as Eazzy 24/7.

This banking technology is at the hub of the customer relationship and is quickly becoming a point of differentiation and is already a source of revenue for progressive banks. According to (Osoro & Kiplangat, 2019), the growth in deposit in the Kenyan banks is picking the momentum and is attributed to the support of the mobilization of deposits through agency banking and mobile banking platforms which have gained vast traction in the industry. They reported that in 2018, deposits grew by 10.7 percent compared to a 9.2 percent growth registered in 2017.

1.2 Statement of the Problem

Customer retention is a critical element of any banking strategy in today's increasingly disruptive and competitive environment. Top-performing banking institutions today believe that customers are the purpose of what they do and that they very much depend on them; customers are not the source of a problem, and hence they should never make a wish that customers "should go away" because if they do, their future and security will put in jeopardy. Lots of researchers and academicians all around the world have highlighted many benefits of retaining customers such as employee retention and satisfaction, better service, lower cost, lower price sensitivity, positive word-of-mouth, higher market share, higher efficiency and higher productivity Boohene *et al*., (2013). That is the main reason why these institutions are focusing much attention on customer satisfaction, loyalty and retention (Kiki & Ogutu, 2021).

However, banking institutions are still confronted with growing and complicated challenges which require a broader understanding as to why banking institutions are spending billions in gaining new customers but failed to keep them beyond the introduction stage. In Kenya, a report from the Kenya Bankers Association in 2019 (KBA, 2019) indicates the bearing of disruptive financial technology on the expectations of customers, who now prefer an enhanced digital experience for convenience, relative to the conventional brick and mortar model. The survey reports that a substantial percentage of bank customers prefer mobile banking channels forty nine percent (49%), while Sixteen per cent (16%) of customers prefer Internet banking, and five percent (5%) being inclined to ATM transactions. Further, a preference shift to digital platforms is being espoused especially by the younger generation, particularly those between 26-35 years. In line with the shift in customer preference, the banking industry has aligned itself to technology across banking channels.

Numerous studies have attempted to explain the factors influencing customer retention, however, most of the existing literature tends to focus on the direct effects these factors. For instance, the effect of service quality on customer retention (MoyoTalak, 2013; Surendra, 2015; Tamuliene & Gabryte, 2014) , the effect of customer perceived value on customer retention (Angel Moliner Tena et al., 2006; Cronin Jr et al., 2000; Evans, 2002) and the role of perceived corporate image in influencing customer retention (Nguyen & Leblanc, 2001; Rakeullah, 2020). There seems to be lack of published research testing the mediating effects of customer perceived value on the relationship between mobile service quality and customer retention and the moderating effect of perceived corporate image on the relationship between mobile banking service quality, customer perceived value and customer retention. Therefore, this study seeks to examine the relationship between mobile banking service quality and customer retention and how perceived customer value mediates the relationship and perceived corporate image moderates these relationships in the context of the Kenya's banking industry.

Finally, there is limited evidence of studies that investigated the effects of mobile banking service quality, customer perceived value, perceived corporate image, and customer retention constructs in a single framework or tested the relationships simultaneously. The assessments of many studies on banking have been fragmented when evaluating the exact nature of the relationships. Thus, the complex interrelationships among these constructs have not been fully discovered and understood for banking sector and more so, from a Kenyan perspective. This study sought to further the understanding of the interrelationships and their effects on customer retention.

1.3 Objectives of the Study

General Objective

To examine the effect of mobile banking service quality, customer perceived value, corporate image on customer retention in the Kenyan banking industry.

Specific Objectives

i. To establish the effect of mobile banking service quality on customer retention

ii. To examine the effect of customer perceived value on customer retention

iii. To assess the effect of perceived corporate image and customer retention

iv. To determine the mediating effect of customer perceived value on the relationship between mobile banking service quality and customer retention

v. To examine the moderating effect of perceived corporate image on the relationship between mobile banking service quality and customer perceived value.

vi. To establish the moderating effect of perceived corporate image on the relationship between relationship between mobile banking service quality and customer retention

vii. To evaluate the moderating effect of perceived corporate image on the relationship between customer perceived value and customer retention

viii. To determine the moderating effect of perceived corporate image on the indirect relationship between mobile banking service quality and customer retention via customer perceived value.

1.4 Hypotheses of the Study

H_{01}: Mobile banking service quality has no significant effect on customer retention

H_{02}: Customer perceived value has no significant effect on customer retention

H_{03}: Perceived corporate image has no significant effect on customer retention

H_{04}: Customer perceived value has no mediating effect of on the relationship between mobile banking service quality and customer retention

H_{05}: Perceived corporate image has no moderating effect on the relationship between mobile banking service quality and customer perceived value.

H_{06}: Perceived corporate image has no moderating effect on the relationship between mobile banking service quality and customer retention

H_{07}: Perceived corporate image has no moderating effect of on the relationship between customer perceived value and customer retention

H_{08}: Perceived corporate image has no moderating effect on the indirect relationship between mobile banking service quality and customer retention via customer perceived value.

1.5 Significance of the Study

This study sought to establish the moderated-mediated relationship between mobile banking service quality, corporate image, perceived customer value and customer retention in Kenya's banking industry. The study is of importance to a number of stakeholders including the commercial banks, the government and scholars who would be interested in further interrogating the relationship of the study variables. The findings, recommendations and in-depth suggestions of the study will provide key and resourceful insights on whether mobile banking service quality, corporate image and perceived customer value influence the ability of commercial banks in Kenya to retain their customers. Therefore, the key insights from this study would enrich the ongoing debate on Customer retention. In the banking industry, mobile banking service quality is a contemporary issue in many developing countries such as Kenya (Surendra, 2015). The issue of mobile banking service quality has not been extensively investigated especially in developing countries. Thus, the study provides a base for which researchers can interrogate the concept.

This study will also probe the potential mediated-moderating effects of customer perceived value and corporate image on the nexus between mobile banking service quality and customer retention to unearth a comprehensible picture of how mobile banking service quality influences customer retention. Thus, the study will contribute to knowledge by conducting tests of moderation of customer perceived value on the mobile banking service quality - customer retention relationship, which missing in the literature. The service quality models incorporating mobile banking service quality requires a change in the way the banking industry operates. Hence, the study would be useful to practitioners in the field of strategy, marketing and finance particularly trainers who would be able to design training programmes with focussing on market information and use of mobile technology to access and use financial services.

1.6 Scope of the Study

The main objective of this study is to examine the effect of mobile banking service quality, customer perceived value, corporate image on customer retention in the Kenyan banking industry. The study was conducted in Nairobi, the Kenya's capital and administrative city. The study targeted consumers of mobile banking services drawn from public and private universities in Nairobi County. The process of data collection was carried over a five-day period running from Monday to Friday in the four universities for a period of three weeks (June 4^{th} to 21^{st} 2019).

CHAPTER TWO

LITERATURE RIEW

2.0 Introduction

This chapter presents an extensive review of both the theoretical and empirical literature. The chapter entails, the concepts of; customer retention, mobile service quality, customer perceived value, perceived corporate image, theories guiding the study, empirical review, summary of the literature, research gaps and finally the conceptual framework.

2.1 The Concept of Customer Retention

In recent years, Customer retention has received significant attention among diverse marketing scholars and marketing practitioners as an important catalyst in the success of many organizations. Despite having received widespread attention in the literature, no single definition of customer retention has gained the majority of marketers' and scholars' agreement. However, there is a general consensus that customer retention implies a long-term relationship between an organization and its customers. Even so, two different views are notable in the definitions; firstly, are definitions from researchers whose point of view of customer retention is from the service providers' angle. For example, Morgan and Hunt (1994) who were among the first researchers in the field of relationship management broadly defined customer retention as "all marketing activities directed towards establishing, developing, and maintaining successful relational exchanges". Selnes (1998) defined customer retention as a dynamic process of establishing, maintaining and enhancing relationships in the long term. Customer retention can also be described as the process of building customer loyalty towards a particular brand, thus resulting in repurchasing its products or services over time (Danish *et al*., 2015). Secondly, are those definitions from scholars who view customer retention from customers' angle for example, (Oliver, 1997) defined Customer retention as "a deeply held commitment to re-buy or re-patronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behaviour" A definition by (Ranaweera & Prabhu, 2003a) which has been repeated by (Kassim & Souiden, 2007): "Customer retention is the future propensity of the customers to stay with their service provider" while (Buchanan & Gillies, 1990) described customer retention rate as "the percentage of customers at the beginning of the year that remains at the end of the year". (Motiwala, 2008) defined Customer retention as "maintaining the existing customer base by establishing good relations with all who buy the company's product"

For this study, the researcher adopts a definition of customer retention from the literature in the following way: "customer retention is a long-lasting customer commitment towards a firm's goods or services and maintaining such relationship as a result of positive perceptions and past experiences". This definition coincides with the main flow of researchers' interests that explains customer retention related concepts such as commitment to re-buy or re-patronize preferred goods or services consistently in the future.

Whereas customer retention implies a long-term relationship, it has many concepts which may exist between the lines. For example, some researchers such as (Zeithaml et al., 2002) used the term "future behaviour intention" to describe "customer retention". This same argument is fronted by Cronin *et al*., (2000b) who used "customer retention" and "behavioural intention" as synonymous concepts. Also, customer retention has a strong link with loyalty which supports the idea of retaining customers

Extant literature on customer retention reveals that there is divided opinion on ways that firms manage customer retention activities. According to (Blattberg et al., 2002), many organizations have specific management units which tackle the main retention strategies and activities duties (e.g. customer retention department) and hence, such units will turn their attention and resources towards increasing the retention rate of customers and users. However, this is not true for most organizations. Pruden, (1995) and Weinstein, (2002) have a feeling that firms are in a hurry to entering the era of relationship marketing yet and retention marketing has yet to progress beyond a topic for articles and speeches, with little real action. This argument is supported by Alshurideh (2016) who contends that the majority of institutions value new customers over existing ones in order to develop their enterprise and replace lost business.

Weinstein, (2016) has provided evidence that shows acquiring new customers and chasing new business still takes up most companies' time, energy, and resources. He reported that around 80% of marketing budgets are often invested in obtaining new business. For example, despite the interest of UK banks in retention, new customers often receive more favourable business conditions, such as lower prices and/or more flexible contracts and payment terms, than existing customers. In contrast, (Aspinall et al., 2001) found that 54% of companies reported that customer retention was more important than customer acquisition, while (Frow & Payne, 2007) established that only 23% of marketing budgets in the UK organizations is spent on customer retention. Moreover, (Chakiso, 2015) illustrated that customer retention is practised by many organizations because it enables them to gain a competitive advantage in the market, which is essential for business and firms' survival. Therefore, firms should put more effort to enhance customer retention rates, especially in highly changeable markets such as the mobile phone sector which reached high levels of market penetration within a short period (Arnold *et al*., 2011).

Despite the fact that customer retention has proven to be an important phenomenon in relationship marketing, retention activities are costly to the organization. Past studies have also revealed that there are costs that are associated with it. For example (A. H. Liu, 2006) provides an analysis of monetary and nonmonetary costs incorporated in searching for and finding a new service provider. Zeithaml *et al*., (2002) demonstrated the salient costs incurred by the customers which include financial expenses as well as time and effort involved in establishing and maintaining a new service relationship.

This coincides with Gupta and Lehmann (2006) results as cited by Ascarza *et al*., (2018) which indicated that a 1 % increase in customer retention had almost five times more impact on firm value than a 1% change in the discount rate or cost of capital. In addition, (Frederick F. Reichheld, 1996) as cited by Dagger and David, (2012) and Yang and Peterson (2004) did a cost-benefit analysis of retaining customers and losing or acquiring new ones. They identified six economic benefits, to organizations, of retaining customers that can be achieved in the long term: First, savings on customers' acquisition or replacement costs; second, guaranteed base profits as existing customers are likely to have a minimum spend per period; third, growth in per-customer revenue as, over a period of time, existing customers are likely to earn more, have more varied needs, and spend more; fourth, a reduction in relative operating costs as the firms can spread the cost over many more customers and over a longer period; fifth, free-of-charge referrals of new customers by existing customers which would otherwise be costly in terms of commissions or introductory fees; and sixth, price premiums as existing customers do not usually wait for promotions or price reductions before deciding to purchase, in particular with new models or versions of existing products. What is more?, Gummesson, (2004) cited by Vargo and Lusch (2010) studied the “return on relationships” concept (ROR) and highlighted two critical points: First, marketing costs go down when customer retention goes up, and firms do not have to recruit new customers as before; second, competitors have a tougher time when retention and loyalty increase; third, both customers and suppliers can get benefits through cost reductions and joint development of products, and systems when they collaborate with competitors on one level.

The available literature emphasizes that apart from the economic benefits that a firm can gain from customer retention, there are many indirect benefits that may outweigh direct profits. Hanks (2007) discussed the importance of soliciting customer feedback to improve business operations, customer retention and profits. Furthermore, Eisingerich and Bell (2007) in their study on the maintenance of customer relationships in high credence services, established that “customers’ willingness to recommend the firm to relatives or friends” is the key component of customer commitment to the organization; also, “perceived excellence in quality of service and trust in the organization” will lead to repurchase intentions. In addition, “word-of-mouth”, for example, represents an opportunity for firms because it has a powerful influence on consumers' attitudes and behaviours. Moreover, the importance of measuring consumer reactions towards organizations based upon emotional and attitudinal responses was underscored by Christensen (2006). Transferring positive information about the organization, its products, image, and brand are all considered examples of a firm’s goals while customers usually promote them for free (Alshurideh, 2016b).

From the customer's perspective, many benefits can be gained through involvement in a long-term relationship, such as enhanced confidence, developing social relationships with others, special treatment benefits, reduction of risk, economic advantages, social benefits and adaptability, and, simplicity and efficiency of the decision-making process (Alshurideh, 2010; Dubelaar *et al*., 2005; Gwinner *et al.*, 1998; Marzo-Navarro *et al*., 2004). Some scholars such as (Dwyer et al., 1987) who cited by (Thomas et al., 2018) categorized customer relational benefits from suppliers into either functional or social benefits. Functional benefits include convenience, time-saving, and making the best purchase decision, while social benefits include how comfortable and pleasant the relationship is, enjoying a relationship with the service provider's employees, and having good friends or a good time (Gummesson, 2004). At the same time, relationship benefits have been categorized to include functional, social, and psychological benefits, according to Sweeney and Webb, (2007). Bitner, (1990) and Sweeney and Soutar, (2001b) illustrated that psychological benefits include empathy, understanding between the relationship parties, and customer-perceived value which has many elements (e.g. perception of reliability, solidarity, trust, responsiveness). A customer may demonstrate his/her retention propensity in many ways: by expressing a preference for a company over others, by continuing to buy from it or by increasing its business in the future (Zeithaml *et al*., 1996). Moreover, Ennew and Binks (1996) differentiated between two dimensions of retention: the continuance of a particular relationship (e.g. contract renewal) and the retention of the customer, which gives firms the apart from the economic benefits that a firm can gain from customer retention, there are many indirect benefits which may outweigh direct profits. The conceptualization of Customer Retention using; customers' expressing preference for a company over others, customers’ continuing to buy from it or by increasing its business in the future and referrals of new customers by existing customers is what this present study adopted

2.2 The Concept of Mobile banking Service Quality

Mobile banking, also known as M-banking has been defined as "a form of banking transaction that is carried out via a mobile phone" (Rahman *et al.*, 2017). Kim *et al.*, (2009) describe Mobile banking as an application of m-commerce that enables customers to access bank accounts through mobile devices to conduct and complete bank-related transactions. Service quality on the other hand has been defined in literature as an overall assessment of service by the customers.

According to Felix, (2017), “service quality is the difference between the customer expectations for service performance prior to the service encounter and their perceptions of the service received”. According to Parasuraman *et al*.,(2005), service quality is the difference between service expectation and service performance. They proposed service quality to be a function of pre-purchase customer expectations, perceived process quality, and perceived output quality

Mobile banking service quality has been recognized as a key ingredient in a firm’s competitiveness. A bank can differentiate itself from competitors by providing high-quality service. Service quality has been one of the most attractive areas for researchers over the last decade in the retail banking sector (Surendra, 2015). Mobile banking (also known as M-banking) refers to a system that enables bank customers to access their accounts and general information on bank’s products and services through mobile devices (Sagib & Zapan, 2014). Mobile banking dates back to the end of the 1990s when the German company Paybox, in collaboration with Deutsche Bank, launched the first service. Initially, it was deployed and tested mostly in European countries:

Germany, Spain, Sweden, Austria, and the United Kingdom. Among developing countries, Kenya was the first to introduce a text-based m-banking service, M-Pesa, in 2007. By 2019, there are more than thirty million registered M-Pesa users in Kenya (Correspondent, 2019).

Researchers use various terms to refer to mobile banking, including; m-banking (Liu *et al*., 2009;Tan & Leby Lau, 2016), branchless banking (Afshan & Sharif, 2016; Ivatury & Mas, 2008; Karlan *et al*., 2014), m-payments, m-transfers, m-finance (Donner & Tellez, 2008; Karjaluoto *et al*., 2010; Morawczynski, 2009, 2009; Oliveira *et a*l., 2016), or pocket banking (Amin et al., 2012; C. Tam & Oliveira, 2017a; Veríssimo, 2016) SMS banking(Amin & Ramayah, 2010).

Diverse scholars have given different definitions to the concept of m-banking based on rapidly evolving technologies. Hence, the definition of m-banking has changed over the decades. For instance, Barnes and Corbitt (Barnes & Corbitt, 2003) defined M-banking as a channel whereby the customer interacts with a bank via a mobile device, such as a mobile phone or personal digital assistant (PDA). (Suoranta & Mattila, 2004), described M-banking as among the newest electronic delivery channels to be offered by banks. In using the term 'electronic banking' the authors refer to a definition that explains it as the provision of information and services by a bank to its customers via electronic wired or wireless channels, for example, the internet, telephone, mobile phone, or interactive television. During the same year, M-banking was defined as a type of execution of financial services in the course of which - within an electronic procedure – the customer uses mobile communication techniques in conjunction with mobile devices (Pousttchi & Schurig, 2004).

Subsequently, Porteous (2006) defined M-banking as financial transactions undertaken using a mobile device such as a mobile phone. Mobile banking (m-banking) includes m-payments but involves access by mobile device to the broader range of banking services, such as account-based savings or transactions products offered by banks. (Schierholz & Laukkanen, 2007) described M-banking as a wireless service delivery channel providing increased value for customers' banking transactions. Clarke III (2008) also defined M-banking as a subset of e-banking or online banking and refers to the shift of conducting financial transactions from wired networks to wireless networks. On their part, Lee and Chung (2009), defined M-banking as banking transactions using mobile devices such as cellphones, PDAs (Personal Digital Assistants), smartphones, and other devices (except for laptops). M-banking was also described as an innovative method for accessing banking services via a channel whereby the customer interacts with a bank via a mobile device (e.g. mobile phone or personal digital assistant) (Luo *et al*., (2010). (Shaikh & Karjaluoto, 2015) described M-banking as a product or service offered by a bank or a microfinance institute (bank-led model) or MNO (non-bank-led model) for conducting financial and non-financial transactions using a mobile device, namely a mobile phone, smartphone, or tablet. (Oliveira et al., 2016) also described M-banking as an instance of a mobile commerce (m-Commerce) application in which financial institutions enable their customer to carry out banking activities via mobile devices. Notably, the evolution of several definitions has changed throughout the last decade. Considering these many definitions and the technological changes over time, this study adopts the recent definition by(C. Tam & Oliveira, 2017b) that M-banking is a service or product offered by financial institutions that make use of portable technologies.

Cruz *et al*., (2010) identifies the difference between m-banking and m-payments and argue that, if a bank is not directly involved in the instrumental gratification of service offered, it is usually called a “mobile payment (m-payment).” Examples of such services include payments through overhead-priced SMS (e.g., ring tones) prepaid account loading (e.g., used for cinema tickets), or a charge made to the subscriber’s account (e.g., credit card or invoice-based payment mechanism).

From an m-banking service perspective, it is a system that comprises several applications, channels, and methods for conducting m-banking, as well as major services offered through m-banking channels. Retail and microfinance banks located in both developed and developing countries typically offer four points of access to m-banking services: (1) mobile applications that can be downloaded to a smartphone, (2) mobile browsers that can be used with any mobile or smartphone that has a Web browser, (3) applications that can be downloaded to a tablet, and (4) short messaging services (SMS) that provide notifications of account information. The first three routes require an Internet connection on the mobile device; SMS relies on standard Global System for Mobile Communication (GSM) networks. Overall, though, m-banking has changed the financial landscape, and portable devices are now considered Alternative Delivery Channels (ADCs) that use different applications to deliver financial and non-financial services and products.

Regarding the measurement dimensions of service quality, Parasuraman *et al*., (1988) developed scales, including the 5 measurement dimensions of Tangibles, Reliability, Responsiveness, Assurance and Empathy, which are the most typical service quality scales in traditional service industries. However, the dimensions and content of SERVQUAL scales do not completely fit the networks or actions for measuring service quality. As a result, Kettinger and Lee (1994) modified the SERVQUAL scales;

cooperated with the user satisfaction of the information service function (USISF); deleted the dimension of Tangibles; and obtained the four dimensions of Reliability, Responsiveness, Assurance and Empathy. Kaynama and Black (2000) developed a seven measurement dimensions of online service quality, which are also based on the SERVQUAL scales and evaluation elements of networks that are proposed by several scholars, called E-QUAL namely; content and purpose; accessibility; navigation; design and presentation; responsiveness; background; and personalization and customization. These seven measurement dimensions, respectively, match the five measurement dimensions.

Moreover, (Zeithaml et al., 2002) developed e-SERVQUAL, which is suitable to measure the service quality of networks, and confirmed the dimensions of service quality, including efficiency, reliability, fulfilment, privacy, responsiveness, compensation and contact. The first 4 dimensions are used to appraise the service quality of customers, called core service quality, before the occurrence of issues, whereas the last 3 dimensions are used to appraise the service quality when customers encounter problems, called recovery service quality. Parasuraman *et al*., (2005) developed the e-core service quality scale (E-S-QUAL), based on the aforementioned, to measure the core service quality of network stores and set up the e-recovery service quality scale (E-RECS-QUAL) to measure the recovery service quality.

Extant literature also reveals that different research objects have been surveyed on service quality dimensions; therefore, the preciseness of the scales compares more rigorously with the research of other scholars. Shin and Kim (2008) as cited by Özer *et al*., (2013) proposed different dimensions to measure mobile service quality, with the dimensions including quality, pricing structure, mobile devices, value-added services, convenience in procedures and customer support. (C. Tam & Oliveira, 2017b) proposed seven dimensions (perceived usefulness, perceived ease of use, content, variety, feedback, experimentation and personalization) to measure the mobile service quality. Building on Zeithaml *et al*., (2002) and Huang *et al*., (2015) presented definitions and measurement items of mobile service quality that include Efficiency, System Availability, Content, Privacy, Fulfilment, Responsiveness, Compensation, Contact and Billing. This present study adopts the measurement dimensions by Parasuraman *et al*., (2005) and Huang *et al*., (2015) as the basis for the design of a service quality questionnaire on mobile banking service quality.

2.3 The Concept of Customer Perceived Value

The concept of customer perceived value (CPV) is among the most important consumer attractive management practice which is drawing significant interest of researchers and practitioners (Chahal & Kumari, 2012). Cronin Jr *et al*., (2000), noted that identification and creation of value ensure organizations develop a continuous stream of products and services that offer unique and compelling benefits to their consumers and build a long-term relationship, leading to continuous growth and profitability. They pointed out that consumers are value-driven and organizations need to understand the perceived value to achieve marketplace advantage. Hence, delivering superior consumer value is an important factor for a company's success and this has been strongly supported by Zeithaml *et al*. (2002) as well.

Marketing researchers have used different terms to describe the concept of consumer perceived value, (Chahal & Kumari, 2012; Woodruff, 1997). For example, (Chang et al., 2005) referred to it as perceived value, while other studies (Oh, 2003; Woodruff, 1997) refers to it as "customer value". Ruyter *et al*., (1997) just refers to it as "value". For (Sweeney & Webb, 2007) it is "value for money". Ravald and Grönroos, (1996), refers to it as “customer perceived value”, and Chen and Chen, (2010), perceived customer value. For Chaudhuri and Holbrook, (2001), it is consumer value, value for the customer (Reichheld, 1996), buyer value (Slater and Narver, 2000) and perceived service value (LeBlanc and Nguyen, 1999). This study adopts (Ravald & Grönroos, 1996) reference and hence, use the term “customer perceived value” (CPV).

There is yet to be found a universally accepted definition of customer perceived value. Diverse scholars have defined this concept in various ways. For instance, Zeithaml *et al.*, (1996) defined customer perceived value as ‘‘the consumer’s overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given’’. De Ruyter and Bloemer, (1999) described customer perceived value as “benefit and sacrifice”. (Holbrook, 1999) defined customer perceived value as an interactive relativistic preference experience. Customer perceived value is the Consumers’ overall assessment of the utility of a product based on perceptions of what is received and what is given Cronin *et al*. (2000). It is a trade-off between benefits and sacrifices Parasuraman and Grewal, (2000). Sweeney and Soutar, (2001b) defined Customer perceived value as “Consumer obtained value from all relevant “get” and “give” components”. According to a definition by Mathwick *et al*., (2002) Customer perceived value is “a perceived, relativistic preference for product attributes or service performance arising from interaction within a consumption setting that facilities or block achievement of customer goals or purpose”. Choi *et al*., (2004) defined consumer perceived value as “Consumer’s evaluation or the utility of benefit and sacrifice”. (Ekrem & Fazil, 2007) Customer utility, perceived benefit relative to sacrifice psychological price, worth and quality. It can also be defined as “a trade-off between perceived benefits and perceived costs” (Lovelock & Patterson, 2015). (Jones et al., 2007), conceptualized the customer perceived value as the consumers’ overall evaluation of the benefits of a product or service by comparing what is paid and what is obtained in return. Customer perceived value is also defined in the literature as the perceptions of consumers about the distinctive benefits and advantages of purchasing a product or service in comparison with other alternatives (Hanaysha, 2017).

Despite the lack of consensus on a single definition of the customer perceived value, there is a general agreement among those definitions that it is consumer's overall assessment of the utility of a product/service, based on perceptions of what is received and what is given. For purposes of this study, the definition by Zeithaml *et al*., (1996) will apply.

A review of extant literature reveals the existence of numerous approaches to operationalizing the concept of customer perceived value. For instance, Cronin *et al*., (2000b); Dodds *et al*., (1991); Filieri *et al*., (2018); Sweeney and Soutar, (2001b) identified two major approaches to the conceptualization and dimensionality of perceived value that can be identified.

The first approach defines customer perceived value as a construct configured by two parts; one is of the benefits received (economic, social and relational) and another of sacrifices made (price, time, effort, risk and convenience) by the customer. According to the explanation by (Zeithaml et al., 2002), value for the consumer results from the personal comparison of the benefits obtained and the sacrifices made. This makes it, therefore, conceived as a highly subjective and personal concept Parasuraman and Grewal, (2000). Also, it contains a component of benefits and another of sacrifices, being an essentially utilitarian perception of the result. It is thus a general view applicable in the field of products, services and relationships. The benefits component, or what a consumer receives from the purchase, would include the perceived quality of the service and a series of psychological benefits (Zeithaml, 1988).

The quality of service is a fundamental element in the perception of perceived value, as it is the most difficult thing for competitors to imitate Parasuraman and Grewal, (2000) and the base on which differentiation (Berry, 1995) and competitive advantage (Reichheld and Sasser, 1990) are sustained. The sacrifices component, what the consumer must contribute, would be formed by the monetary and non-monetary prices, i.e. money and other resources such as time, energy, effort, etc. Thus for the customer to buy the product, or to buy it again, it has to be endowed with value, either by incorporating benefits or by reducing the sacrifices to the customer, setting a price that the latter can afford (Dodds *et al*., 1991).

Secondly is an approach based on the conception that customer perceived value is a multidimensional construct (De Ruyter & Bloemer, 1999; Sweeney & Soutar, 2001b; Woodruff, 1997). This view of value incorporates, the functional dimension and an affective dimension. The functional value is defined by the rational and economic valuations of individuals. The quality of the product and the quality of service form part of this dimension. The affective dimension is divided into an emotional dimension (relating to feelings or internal emotions) and a social dimension (relating to the social impact of the purchase).

This view was supported by other authors such as Mattson (1991) who dealt with the multidimensionality of customer perceived value and captured the cognitive and affective aspects of perceived value. (Sheth *et al*., 1991b, 1991a) also went in the same direction and identified five dimensions of the concept of customer perceived value (social, emotional, functional, conditional and epistemic). They define Social value as the acceptability or utility at the level of the individual's relationships with his social environment, while emotional value consists of the feelings or the affective states generated by the experience of consumption. Functional value is a perceived utility of the attributes of the products and services, conditional value refers to the conjunctural or situational factors such as illness or specific social situations and finally, epistemic value for its part is the capacity of the product or service to surprise, arouse curiosity or satisfy the desire for knowledge.

In their study, Sweeney and Soutar, (2001b) two of the proposed dimensions by (Sheth et al., 1991a, 1991a), the epistemic and conditional dimensions were not considered to be important. Hence, the five initial dimensions were therefore reduced to three: functional value, social value and emotional value. They designed a scale of measurement of customer perceived value known as PERVAL. Within the functional dimension of value, they include factors like price (value-for-money), quality (perceived quality and expected yield of the product or service), and versatility (adaptability and practicality of the product). The social and emotional dimensions are represented by the set of intangibles that affect the relationship. (Sanchez et al., 2006) developed a scale of measurement of post-purchase customer perceived value of 24 items, called GLOVAL. Their study identified six dimensions of perceived value are identified. Four of them correspond to dimensions of functional value: functional value of the establishment (installations), functional value of the contact personnel (professionalism), functional value of the service purchased (quality) and functional value price. While the two remaining dimensions refer to the affective dimension of perceived value, made up of emotional value and social value.

This present study adapts the conceptualization of customer perceived value using; the dimension of price (value-for-money), quality (perceived quality and expected yield of the product or service), and versatility (adaptability and practicality of the product) as proposed by Sweeney and Soutar, (2001b).

2.4 The Concept of Perceived Corporate Image

Corporate image is increasingly becoming an issue of great importance as the markets are becoming more competitive. The concept is, however, very broad and interdisciplinary to the extent that different scholars have defined it differently as well Huang et al., (2014). Extant literature reveals multiple perspectives within and between different disciplines have resulted in varied definitions of corporate image. From organizational behaviour literature, organizational image is defined as perceptions of organizational members towards their organisation, including "the way they believe others see the organisation" (Dutton *et al.*, 1994; Dutton & Dukerich, 1991; Scott, 2013). From the Psychologists definition, corporate image is a symbolic link between an organisation and its various publics (Gioia *et al*., 2000; Grunig, 1993). Similarly, the sociologists describe the corporate image as "sensed" and "communicated" Alvesson, (1990, 2012), while on the other hand, strategists define the corporate image as "the impression of the overall corporation" held by its various publics (Balmer & Greyser, 2006; Gray & Smeltzer, 1985).

In the marketing literature too, substantial research has shown that the concept of corporate image has had different perspectives over years. Keller, (1993) defined corporate image as a perception of an organization held in consumer memory and works as a filter that influences the perception of the operation of the company, This definition differs from that of Gronroos, (1988) who pointed out that corporate image is an indicator that attracts potential or existing customers to be willing to come into contact with a corporation. Whereas Keller, (1993) argues for corporate image as a perception of an organization, by contrast (C.-C. Huang et al., 2014; Nguyen & Leblanc, 2001) believes that the factors forming corporate image may come from the customer's perception of the corporation and its behaviour, including the corporate name, traditions, operational visions, and diversity of product services; these are the results of the interactive influences of all experiences, feelings, ideas, and knowledge of customers. Tang, (2007) holds a similar view as Nguyen and LeBlanc, (2001), that corporate image is the customers' total offering toward organizations, and is the sum of the public's beliefs, ideas, and impressions toward specific organizations. More recently, (Setiawan & Sayuti, 2017) citing (Bravo et al., 2009) defined the corporate image as the overall impression in the minds of customers as a result of the accumulation of feelings, ideas, attitudes and experience with organizations that are stored in memory that may turn out to be positive/negative meaning, taken to reconstruct the image and recalled when the organization's name is heard or brought to mind of someone (Bravo et al., 2009). In banking, corporate image is defined as "the net result of the interaction of all experiences, impressions, beliefs, feelings and knowledge that people have about a company de Leaniz & del Bosque Rodríguez, (2016)

Many different measurement models of corporate image have been proposed (Berens & Van Riel, 2004; Dowling, 1986; Nguyen & Leblanc, 2001; Spector, 1961). However, there is no consensus yet on which conceptualization or measurement is most dominant in corporate image research. This is because corporate image is an extremely complex concept that calls for an increasing number of elements for its analysis Flavián *et al.*, (2004). This assertion is supported by Nguyen and Leblanc, (2001) who pointed out that corporate image is not a single entity, since it depends on the perception of each specific group of people and on the type of experiences and contacts they have had with the company. Flavián *et al*., (2004) highlighted the particular complexity of such a study when dealing with companies devoted to the marketing of services. Indeed, services are a special case because of their intangibility, the difficulty in separating production from consumption, their heterogeneous nature, and the fact that they are perishables. All this they aver that, when latent variables such as quality of service are analyzed, it is particularly complex to measure them. This is due to the need to include aspects that are typical of the supply of a service as against the distribution of tangible goods.

As regards to the analysis of corporate image in the banking sector, it is probably true to say that the interest shown by management and researchers in quantifying banking's image is not a recent phenomenon: Early examples of research in the 1970s that focused on image from a multidimensional perspective include (Durand et al., 1978; Evans, 1979; Laurent, 1979). A decade later, several studies attempted to identify the true dimensions of corporate image using multivariate techniques. For instance, Mandel *et al*., (1981) demonstrated that a bank's image may be considered as a multidimensional concept made up of multiple aspects such as; the benefits offered to the customer and the profits obtained by the bank as a result. (Walters, 1978) divided corporate image into the three dimensions of institution image, functional image and commodity image. Whereas (Riordan et al., 1997) used a single dimension to measure corporate image. While (Pina et al., 2006) used eight dimensions to measure corporate image, which are respect, professionalism, success, adequate establishment, stability, trustworthiness, reliability, and concern for customers. More recently, studies such as Nguyen and LeBlanc, (2001) and Berens and Van Riel, (2004) measured the construct in a way to encapsulate corporate associations in the eyes of stakeholders. A key study that analyzed corporate image is that of LeBlanc and Nguyen, (1998; 2001) which developed a model that includes certain factors that influence the forming of a bank's corporate image and which also help to analyze corporate image from a multi-dimensional perspective. This study adapted (Riordan et al., 1997) approach where perceived corporate image is used as a unidimensional variable.

Empirically, several studies have identified factors that enhance corporate image. These factors include; the dynamism of the company, credibility/stability, customer service, visual identity, the reputation of directors, service offering, history, advertising, and promotion Chattananon *et al*., (2007). These factors are grouped into three categories as suggested by Chattananon *et al*., (2007): behavioural factors, symbolic, and communication factors. The behavioural factors refer to management and employees' behaviour, reputation of directors and the employee's role. Symbolic factors include visual identity and other tangibles such as products, service quality and history. The communication factors refer to advertising and promotion. Similar work has also been pursued by Nguyen and Leblanc, (2001) in who identified five elements of corporate image as; a) corporate identity, b) corporate individuality, c) physical environment, d) service offering and e) contact personnel. Corporate identity contains the company’s name, logo, exceptional features, pricing, quality and quantity of advertising. Corporate individuality consists of corporate philosophy, values and culture, strategic management, mission and objectives. According to van Riel and Balmer (1997), corporate individuality contains quality, integrity, value for money, technical innovation, social responsibility, service, reliability and imagination. Perfect corporate individuality is formed if all the aspects are kept at the same development level. The physical environment on the other hand is comprised of the environmental aesthetics, lighting, condition of furniture, buildings and other the company's property. Nguyen and LeBlanc, (2001) aver that an esthetic environment increases consumer satisfaction and raises corporate image. This suggestion is supported by Chattananon *et al*., (2007), who emphasize that room decorations, lighting and other features can be used to communicate corporate image to the consumers. Service offering on the other hand contains a variety of services, service availability and service processes. Contact personnel too are of vital importance in formation of consumer attitude towards the company and its products, forming corporate image. Personnel should be friendly, courteous, caring, competent and of attractive appearance LeBlanc and Nguyen, (1998). Contact personnel can harm the corporate image if they dissatisfy customers by a bad mood, poor attitude, and etcetera. Van Heerden e*t al*., (1995).

A review of major studies in this area reveals a positive link between corporate image and customer satisfaction, loyalty and retention sector-wise. Gautam, (2011) linked corporate image with customer satisfaction in the aviation industry, while (Setiawan & Sayuti, 2017), (Nkaabu *et al*., 2017), and (Nguyen & Leblanc, 2001) established a positive relationship between corporate image and customer loyalty and retention in travel agencies, retailing and telecommunication services respectively. Their results were further endorsed by (Lai, 2019) and (Elvis & Ehijiele, 2019) in the hotel industry and banking industry respectively. On the other hand, Some researchers such as (Sarstedt et al., 2012; Bravo et al., 2009) have argued that corporate image is an important aspect for the organization to maximize their profit, survival in the market, retaining customers, attracting customers and market share. Corporate image has also been considered a source of competitive advantage because a positive image will help the company attract customers and will have a positive influence on the trust of other interested groups Wu, (2013). According to Hsieh and Li, (2008), a strong image is the most effective means of differentiation in banking, as well as strengthening customers' confidence in their bank. Likewise, Bravo et al., (2009) claim that corporate image represents an asset that allows companies to differentiate and increase their success chances especially in highly competitive sectors like banking. This study, therefore, sought to establish the role corporate image in customer's evaluation of service quality and its influencing customer's decision to stay with the service provider or make a switch decision.

2.5 Theoretical Perspectives

Over time, different theories and models have been used to explain the interrelationship between customer retention and other elements such as service quality and customer perceived value that influences of consumer behaviour. This study applied the 'leaky bucket theory' of marketing by (Ehrenberg, 1988) as the main theory underpinning the study. Moreover, the customer value/retention model authored by Weinstein, (2002), and the MS-QUAL model by Surendra, (2015) have also been used as theoretical foundations of the study. These theories have been widely used in consumer behaviour studies (Dodds *et al*., 1991; Echchabi & Azouzi, 2015; Gerpott *et al*., 2001; Gustafsson *et al*., 2005; Kazemi *et al*., 2013; Moons & De Pelsmacker, 2015; Stauss *et al*., 2001; Surendra, 2015; Thye Goh *et al*., 2014).

2.5.1 The Leaky Bucket Theory of Marketing

The leaky bucket theory is the model that seeks to describe the process of customer gain and loss, otherwise known as customer churn. The theory was coined by (Ehrenberg, 1988) to describe the fact that most companies operate on a 'leaky bucket' basis, seeking to refill the bucket with new customers while ignoring the ones leaking away through the bottom of the bucket. The theory uses a bucket that has several holes in the base and its walls. A hose is put into the bucket and it is filled with water. Some of the water will run out of the holes. In the analogy, water going into the bucket represents new customers being acquired and the water flowing out of the bucket represents customers lost to the firm. The amount of water in the bucket represents the total customer base of the firm at that time. Andrew Ehrenberg coined the phrase ‘leaky bucket’ to describe a syndrome where most companies concentrate on recruiting new customers to replace customers who move on, rather than seeking to retain customers, in effect, firms are putting customers into a leaky bucket, and instead of preventing them from leaking away through the bottom of the bucket, the firm keeps topping up the bucket with new customers (Ehrenberg, 1988).

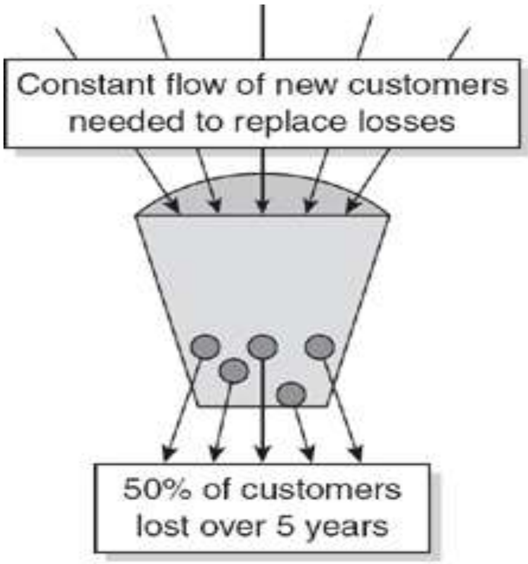


Figure 2.1: Leaky Bucket Theory

Source: Murphy, 2001

The theory highlights the importance of keeping a consistent base of customers for a business to operate at a profitable level and strategies are required to continually meet the needs of customers (Dawes *et al*., 2020). Those firms that direct a large share of their marketing activities to winning new customers often experience the leaky bucket effect. These firms lose customers due to focusing too much on future customers rather than keeping existing ones happy (Christopher *et al*., 2013).

Strategically, as illustrated by (Egan, 2001), shown in figure 2.2, the theory has two key approaches, which are; first, customer acquisition (offensive marketing strategy) and secondly customer retention (defensive marketing strategy). Aka *et al*., (2016), acknowledges that customer acquisition is a continuous need in a business for 'new customers'. Egan (2001) agrees with the fact that a continuous need in business for new customers exists. Thus, any fall in the total number of customers has profitability implications for the marketer, particularly in the service industries where the fixed costs (people) are an important element in the service mix and the highest. Traditionally, organizations have focused on the customer acquisition process as market growth provided a constant supply of new prospects, however, with the nature of the market dynamism today, there is a possibility that substitutes or new competitors enter the market and the flow is diverted (leaks in the bucket). Hence, the tendency is that customer acquisition in general terms will become more difficult. The remedy to this is the second aspect in this theory, Customer retention. That is, sealing the holes in the leaky bucket. Customer retention focuses on keeping existing customers happy and satisfied. It involves building a long-term satisfying relationship between the parties (i.e. customers, employees, suppliers, distributors, among others) involved in a transaction.

Although the leaky bucket theory was originally developed to measure and explain the fall in expected levels of repeat purchases,(Ehrenberg, 1988), the theory has been adopted and widely applied to customer relationship management and consumer behaviour studies. The theory was first replicated and extended (East & Hammond, 1996) in their study of the repeat-purchase rates of the brand buyer in stationery markets where they established that erosion rates reached an average 15 percentage-point loss in a year. (Frow & Payne, 2007) applied it in their study to that considered how an 'outstanding' or 'perfect' customer experience might be achieved at an affordable cost.

Researchers who are in support of customer acquisition as is proposed in this theory recon that the flow of new customers 'new blood' is significantly needed to replace any loss of customers (Egan, 2001). In contrast, other customer relationship researchers have given customer retention more prominence than customer acquisition (Egan, 2001; F.F. Reichheld & Dawkins, 1990; Frederick F. Reichheld, 1996). This This is because of the company's benefit and reputation. (Gummesson, 2002, 2017) aver that companies accept the theory of customer retention generally because of the following reasons; existing customers are easy and inexpensive to retain than to create new stream of clients, It takes much less levels of marketing effort and financial input to satisfy old customers and Consumers' loyalty serves as secure and superior profitability over time for the company.

This theoretical model is thus suited for this study since the dependent variable of this study is customer retention. The m-banking experience ought to be designed in such a way that it encourages the best experience for its customers and hence lead to encourage a new and potential customers as well as repeat purchases or retention of existing customers. The bucket theory, stresses on retaining existing customers and recognizing and acquiring potential customers. as (Egan, 2001) reiterated, the objective should be to keep any customer available in the market and ensure that there is a constant flow of clients, if a firm is to be successful.

2.5.2 Customer value/retention model

The customer value/retention model was authored by Weinstein, (2002). This model conceptualizes the interrelationship between customer perceived value with other core elements that create value in an organisation. The model consists of seven key components; customer value, customer satisfaction, loyalty, business performance, shareholder value, customer attraction and customer retention as shown in the figure in figure 2.1.

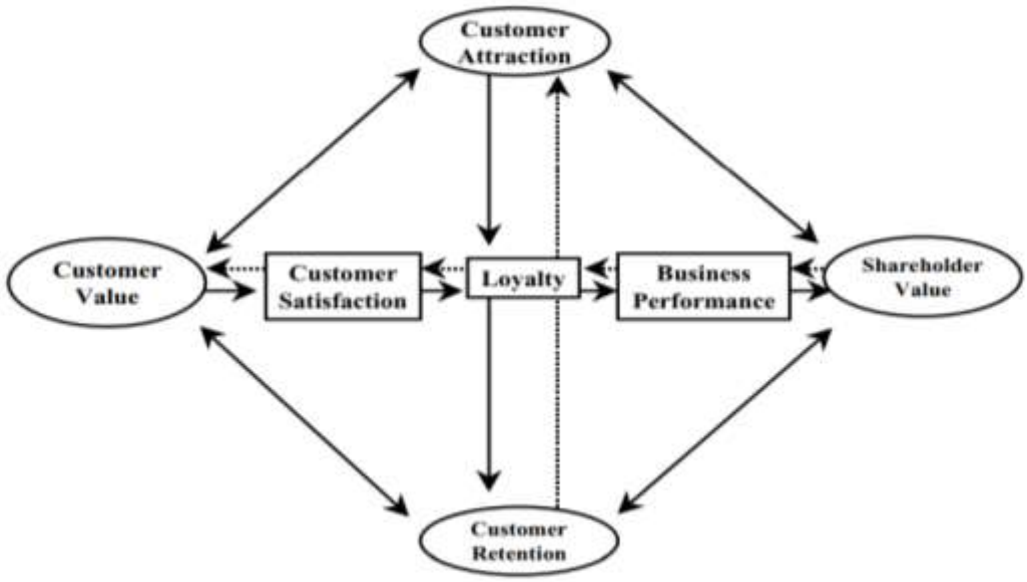


Figure 2.2: Customer value/retention model
Source: Adapted from Weinstein, (2002)

The customer value/retention model provides a theoretical foundation that links customer value, customer satisfaction, loyalty, business performance, shareholder value, customer attraction and customer retention. As illustrated in figure 2.1 the model suggests that providing superior customer value is the starting point in the horizontal customer profitability chain. These elements enable organizations to attract and retain customers (Weinstein, 2002, 2016). In addition, the model suggests that there is a need for companies to classifying customers into usage categories, where then, the management can design appropriate strategies for each market segment. The objective is to move customers up the ladder, where possible. Usage analysis implies that all customers are not equal, for instance, a one-time buyer is a trier, rather than a customer. Therefore, to move beyond the transaction stage, organizational experiences must meet or, preferably, exceed the buyer's expectations. This results in customer satisfaction (Anderson & Narus, 1991).

Scholars have reasoned repeated incidents of high satisfaction which is as a result of effective utilization of relationship marketing strategies, leads to higher customer loyalty (Rahim *et al*., 2012). Previous studies have also shown that there is a significant difference between customer satisfaction and customer loyalty. These empirical studies established that while customer satisfaction is more about securing future revenues for an organization (E. W. Anderson & Fornell, 2000; Bolton et al., 2000; Ioannou et al., 2018), Customer loyalty is more about winning the confidence of the customer in favour of an organization such that the relationship becomes a win-win situation for both the organization as well as the customer (Rahim *et a*l., 2012).

Customer loyalty, in turn, (which results from the quality of the customer-company relationship) leads to improved business performance. Furthermore, the ability to retain customers leads to increased market values. The vertical customer retention chain shown in Figure 2.1 indicates that, ideally, loyal new customers are retained for many years.

Although the customer value/retention model was originally developed to provides the theoretical foundation for the linkage between customer perceived value and other core elements that create value in the service sector Weinstein, (2002). The model has been adopted by marketing researchers and is widely applied to consumer behaviour studies in other sectors. For example, (Gustafsson *et al*., 2005) using the framework, a research in the car industry using a sample of Volkswagen customer club members in Germany found that customer value affects customer satisfaction which in turn affects customer loyalty and ultimately customer retention. Another study (Gerpott *et al*., 2001) applied the framework in the mobile cellular telecommunications market, they established empirical evidence of causal linkages from customer value through to customer satisfaction, to customer loyalty to customer retention. This model was further validated in an empirical investigation in the hospitality industry by (Stauss et al., 2001) who established that customer perceived value affects customer satisfaction which in turn affects customer loyalty and ultimately customer retention. They added that loyalty increases with customer satisfaction at an increasing rate.

The customer value/retention model is thus suited for this study since it demonstrates the customer journey from its start point at customer value through to the end customer retention. This linkage between customer perceived value and customer retention captures the main focus of the study.

2.5.3 MS-QUAL Model

The M-S-QUAL model is an extension of the SERVQUAL model by Parasuraman *et al*., (1985). Its development was necessitated by the limitation of the original model in dealing with service quality. M-S-QUAL model is also known as the multidimensional measurement model for accessing the quality of service. (MS-QUAL) was designed by (Surendra, 2015), as a scale for measuring service quality offered to mobile banking customers. According to Surendra, (2015), customers form their service quality perceptions based on their evaluations of five primary dimensions including; 1). Mobile Banking Service- Efficiency: This is the ease and speed of accessing and using the mobile banking service. 2). Mobile Banking Service- Fulfillment: This is the extent to which the mobile banking service' promises about service delivery are fulfilled. 3). Mobile Banking Service- Availability: This describes the correct technical functioning of the mobile banking service platforms. This dimension is a measure showing that the banks' mobile service platforms are highly functional and available for customers' use any day, anytime. 4). Mobile Banking Service- Privacy: This is the degree to which the banks' mobile service platforms are safe and protect customer information. 5. Mobile Banking Service- Responsiveness: This is the effective handling of problems through the banks' mobile service platforms. Contact: This is defined as the availability of assistance through mobile telephones or any other forms of communication by representatives of banks.

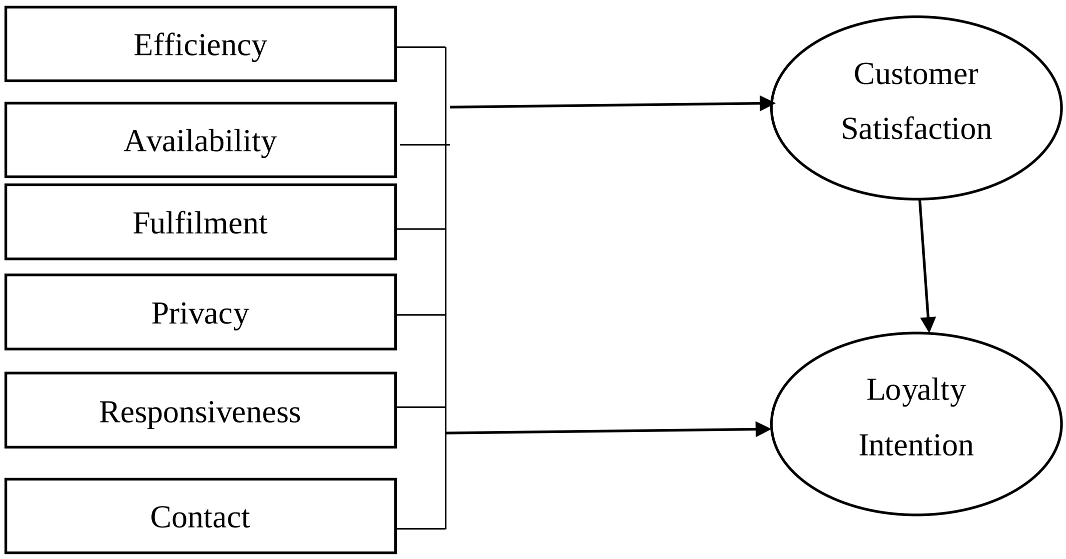


Figure 2. 3: *M-S - QUAL model*
Source: Surendra, (2015)

2.6 Empirical Review

A large and growing body of literature has investigated the relationship between mobile banking service quality, customer perceived value, perceived corporate image and customer retention. To shed new light on these relationships, various literature has been reviewed to identify the research gaps.

2.6.1 Mobile Banking Service Quality and Customer Retention

Previous scholars document that a relationship exists between mobile banking service quality and customer retention. For instance, Sagib and Zapan,(2014), sought to understand what customers perceive as quality dimensions in mobile banking services, and what impact these dimensions have on customer satisfaction and retention. In their analysis, Sagib and Zapan, (2014), reported that service quality as a whole is a strong antecedent of customer satisfaction and retention. Their findings further revealed that only two dimensions of mobile banking service quality (reliability and efficiency) positively influenced customer retention while three dimensions of mobile banking service quality (reliability and responsiveness, efficiency and convenience) have a positive influence on customer satisfaction. In the same vein, Arcand *et al.*, (2017) assessed the impact of the mobile banking service quality dimensions (e.g. security/privacy, practicity, design/aesthetics, sociality and enjoyment) on relationship quality (including commitment) respecting financial institutions. They too confirmed that mobile banking service quality dimensions also influence trust and commitment/satisfaction. Trust is associated with security/privacy and practicity (regarded as utilitarian factors), while commitment/satisfaction is driven by enjoyment and sociality (dimensions more hedonic by nature). In a related investigation, Leon *et al*., (2020) established that Self-Service Technology service quality (SSTQUAL) dimensions influence the perceived value and customer satisfaction in mobile banking applications.

While most studies have established a positive direct relationship between mobile banking service quality and customer retention, other researchers, however, have established an indirect influence of mobile banking service quality on customer retention. Caruana *et al*., (2000) established that the effect of quality on satisfaction is not just direct but is also moderated by value and the three constructs played a key role in services marketing generally and are believed to have a significant effect on customer retention and ultimately long-term profitability. Their findings are in line earlier studies by Cronin and Taylor, (1992) who argued that have indicated that service quality influenced customer retention only through satisfaction. They aver that consumers do not necessarily buy the highest quality service; convenience, price, or availability may enhance satisfaction while not affecting consumers' perceptions of service quality.

In general, some empirical support has been found in the literature that mobile service quality could enhance rather than diminish relationships. Mobile banking service quality has the potential to make customers enthusiastic about their bank and inclined to tell other potential customers about its advantages. Thus, Mobile banking service users would be more likely to comment positively about their bank to other people, recommending the bank and encouraging others to do business with it Nasri, (2011). The quality and the use of such automated channels as mobile banking a means of delivering banking services have become an important way of maintaining customer loyalty and increasing market share Joseph and Stone, (2003). However, the literature has also warned that such technologies could isolate customers, provide a sense of incompetence, and enhance disconnectivity and passivity Joseph and Stone, (2003).

2.6.2 Customer Perceived Value on and Customer Retention

In the literature, customer perceived value has been associated with customer retention and many suggestions proposed that companies should shift their customer retention strategies towards superior customer value delivery because a customer value both the costs and the benefits of staying with a company. Hence, customer perceived value is deemed a strong driver of customer retention Gupta et al., (2020). This suggestion is supported by other researchers such as Saleky *et al*.,(2017), who argue that consumers are keen to be loyal to companies that can deliver superior value relative to the offerings of competitors. Likewise, perceived value also affects intentions to recommend and repurchase.

Extant literature reveals evidence that over the years, customer perceived value is a major determinant of customer retention in various contexts and industries. For example, Bolton and Drew, (1991), identified that customer perceived value was a major determinant of customer retention in telephone services; (Oh, 2000), measured fine-dining patrons' perceptions of value, and satisfaction both before and after their dining experience. The results reveal that value is a superior predictor of repurchase intentions, both pre and post-experience. The study also established that satisfaction was a powerful predictor of customer repurchase intentions. Sirdeshmukh *et al*.,(2002) developed a framework for understanding the behaviours and practices of service providers that deplete consumer trust and the mechanisms that convert consumer trust into value and loyalty in relational exchanges in retail (clothing purchases) and services (nonbusiness airline travel), they found out that perceived value strengthens consumer trust. In 2004, some studies found positive relationships between customer perceived value and customer relationship in diverse sectors, for instance, Petrick, (2004), established that customer perceived value was key in predicting cruise passenger's behavioural intentions; Durvasula *et al*.,(2004), also linked customer perceived value to behavioural outcomes in the life insurance industry. The study also revealed that customer perceived value is a better predictor of customers' willingness to recommend to others, than satisfaction; Yang and Peterson, (2004), also established that customer perceived values play an important role in customer satisfaction and retention among the online service users; Choi *et al*., (2004), established a positive relationship between customer perceived value, satisfaction and behavioural intention in health care provider choice in South Korea; Chen (2008) confirmed that perceived value has a direct influence on airline passengers' behavioural intentions in Taiwan. Hu *et al.*, (2009) established in the hotel industry, while in the same year, Lai *et al*.,(2009) in the mobile communications industry; Chen and Chen, (2010) examined the visitor experience of heritage tourism and investigates the relationships between the quality of those experiences, perceived value, satisfaction, and behavioural intentions in heritage tourism. Their results indicated a significant and positive effect of perceived value on customer satisfaction, and behavioural intentions. Javed and Cheema, (2017) Customer perceived value is the powerful drive of customer loyalty and a key motivator for customers to make repeat purchases of the product and services in the restaurant sector of Pakistan

In a recent study by Prodanova *et al*., (2019), where they explored different perceived value components intending to explain the intentions of Macedonian m-banking users to continue using these services. Their findings indicate that bank entities can increase customers' intention to reuse m-banking, by providing an enriched perceived value of m-banking services, precisely putting emphasis on perceived value drivers related to utilitarian value (ubiquity) and epistemic value (novelty seeking).

Attending to previous suggestions for further research on the emerging yet still narrow body of research on the customer perceived value of m-banking services (Prodanova et al., 2019) can be recognized in this study by probing the role of customer perceived value on the relationship between mobile banking service quality and customer retention.

2.6.3 Perceived Corporate Image and Customer Retention

Perceived Corporate Image is also believed to be an important factor in developing and maintaining customer retention. Nguyen and Leblanc, (2001), described image formation as a procedure by which ideas, feelings and previous experiences with an organization are stored in memory and transformed into meaning based on stored categories. When the service firm is brought to the mind of the customer later, these past experiences are retrieved to reconstruct the image and are compatible with the customer's attitudinal structure. If these past experiences were satisfactory customers will form a favourable image of the firm leading to repeat purchases.

Many researchers in marketing have recognized the critical role of corporate image in customers' buying behaviour and their importance in developing and maintaining loyalty on the part of the consumer and retaining customers on the part of on organization. Hence, over the past decade, most marketing research has been undertaken on the effect of corporate image on customer retention and in customer relationships in general. Among the early studies conducted was that of Ravald and Grönroos, (1996), who established that corporate image is of utmost importance to service firms and is to a great extent determined by customers' assessment of the services they receive. These findings were echoed by Nguyen and Leblanc,(2001), whose conclusion is that customers receiving higher levels of service quality will form a favourable image of the banking institution and are likely to continue with the service.

In their study on the relationsship between customer retention and activities related to brand image undertaken by mobile telecommunication organizations in Bangladesh, (Rakeullah, 2020) established that corporate image played a significant role in customer retention and more specifically, they identified two latent variables of corporate image namely, brand positivity and brand familiarity that were positively associated with customer retention.

From these previous discussions, it is evident that the body of research on the effect of perceived corporate image on customer retention among the mobile banking service providers is still scanty and a further research on this relationship of these variables would be necessary. This study seeks to fill this existing gap

2.6.4 Customer Perceived Value as a mediator

Apart from a direct relationship between customer perceived value and customer retention, there is a strong possibility that customer perceived value plays a mediating role between mobile banking service quality and customer retention. Customer perceived value qualifies as a mediating variable because it has been studied as a consequence of service quality as well as the antecedent of customer retention in multiple past investigations.

Past studies support the role of customer perceived value as a consequence of customer. Zeithaml (1988) was among the first researchers who established that service quality has a positive effect on perceived value. Later, Groth and Dye, (1999), argued that customers perceive value originates from both the service act itself and the quality of the service act. Hapsari *et al.*,(2016) established a positive and significant relationship between service quality and perceived value. They concluded that the higher quality of service perceived by the customers, the higher the value perceived by the customers.

Their findings support earlier findings by Howat and Assaker (2013) that, the quality of core services, secondary services and staff are significant in determining their higher-order customer perceived value. While Tam (2004) had also argued for this direct relationship that as customers' perceptions of the quality of the service increase, they feel more satisfied with the service and perceive a higher value in the service. Furthermore, ÇetiNsöz (2013) maintained that there is a positive and strong affiliation between e-service quality and perceived value.

Past studies have also established that customer perceived value is a trigger of customer retention. Parasuraman & Grewal (2000) established that perceived value is the most important predictor of repeat purchase intention. They argued that when a customer received a high value of service, it will result in high satisfaction leading to repeat purchases. Their finding received concurrence from McDougall and Levesque (2000) maintained that perceived value is a major antecedent of satisfaction as consumers evaluate their satisfaction based on the level of value they received. Furthermore, Diller (2001) contends that every customer tends to trade the value they received with other motivational aspects of loyalty (in this case is customer's commitment to stay). More recently, Hapsari *et al*., (2016) established a positive effect of perceived value on customer satisfaction. Their findings document that Indonesian airline passengers who perceived a higher value of service will also display a high level of satisfaction.

Previous studies have also suggested that perceived value is a common construct between the quality of service and customer retention (H. Chen & Zhu, 2012;

Hanaysha, 2018; Keshavarz & Jamshidi, 2018). The mediating role of perceived value for the relationship between service quality and customer retention is summed up by the argument by Hapsari *et al*., (2016) that consumer perceptions of the inherent characteristics of banking service quality can help to reinforce favourable brand associations that eventually lead to long-lasting customer commitment towards a firm's banking services. Because of the enumerated importance of customer perceived value, this study seeks to determine the mediating role of customer perceived value on the relationship between mobile banking service quality and customer retention.

2.6.5 Perceived Corporate Image as a Moderator

Although in general, a direct link between corporate image and customer retention has been confirmed in several studies and different settings, there is also a strong belief that perceived corporate image play a moderating role too. The choice of perceived corporate image as a moderating variable in this study is based on previous studies. For instance, Hapsari *et al*., (2016), established that service quality drives customers' perceived value, but this relationship is stronger where the customer's perception of the firm's corporate image is favourable or weaker where the customer's perception of value is low. In their study, Rabach and Tarus, (2013) also established that favourable company image enhances the relationship between service quality and customer satisfaction, social pressure, and customer loyalty. Further support from Gautam, (2011), where the results of a study on the moderating role of brand image on this relationship between emotional engagement, corporate performance, customer-centrism and service quality indicate that when such social and ethical programmes succeed in creating a good brand image for a retail bank, it could influence customers to engage it as a service provider. Moreover, Gautam (2011) too established that corporate image plays a moderating role in the relationship between perceived justice dimensions and recovery satisfaction. In their study on the effects of customer relationship management on Customer Satisfaction and Loyalty in China, (Chung *et al*., 2015) confirmed that indeed corporate image plays a moderating role in both of these relationships. Nikbin *et al*.,(2010) too examined the moderating role of corporate image in the relationship between perceived justice and recovery satisfaction. Their results suggested that corporate image plays a moderating role between perceived justice and recovery satisfaction in the distributive and interactional justice dimensions. Narteh and Braimah, (2019) too found out that corporate brand image moderates the relationship between social and ethical engagement and bank selection. It is on the basis of the findings of these studies that perceived corporate image was adopted in this study as a moderating variable

2.7 Summary of the Literature and Knowledge gaps

In summary, empirical literature shows that customer retention is critical to the survival and competitiveness and success of any firm. The literature also reveals that mobile banking service quality, customer perceived value and perceived corporate are among key variables enhancing customer retention. Few empirical studies have been conducted to examine the relationship between mobile banking service quality, customer perceived value and customer retention, and it is evident that the studies have yielded inconsistent results. Very few studies have also considered the mediating effects of customer perceived value on mobile banking service quality and customer retention, considered the moderating effects of perceived corporate image on mobile banking service quality and customer retention, while no study has considered the moderated- mediation effect of corporate image on the relationship between mobile banking service quality and customer retention via customer perceived value. Table 2.1

helps delineate a summary of studies linking mobile banking service quality, customer perceived value, perceived corporate image and customer retention.

Table 2.1: Summary of past studies linking mobile banking service quality, Customer perceived value and Perceived corporate image to customer retention

Researcher(s)	Focus of study	Findings	Research gaps
(Arcand et al., 2017)	Mobile banking service quality and customer relationships	Mobile banking service quality dimensions influence trust and commitment/satisfaction. Trust is associated with security/privacy and practicity, while commitment/satisfaction is driven by enjoyment and sociality. They did not find any link between interface design and either trust or commitment/satisfaction.	Did not consider the role of mediating variables such as customer perceived value or moderating perceived corporate image in the relationship or moderated - mediated relationship between these variables.
(Surendra, 2015)	Exploring Mobile Banking Service Quality Dimensions for Public and Private Sector Banks in Indore District of Madhya Pradesh	They established that ‘Assurance & Security’, ‘Efficiency & Convenience’, ‘Responsiveness’ and ‘Reliability’ dimensions are predictors for mobile banking service quality of public and private sector banks of Indore	Did not consider the influence of the Mobile Banking Service Quality Dimensions on customer retention
(Sagib & Zapan, 2014)	Bangladeshi mobile banking service quality and customer satisfaction and loyalty	They reported that service quality is a strong antecedent of customer satisfaction, but only three dimensions have a positive influence on satisfaction (reliability and responsiveness, efficiency and convenience) while two of them on customer retention (reliability and efficiency)	While their context is in Bangladeshi mobile banking service, the also did not consider the role of mediating variables such as customer perceived value or moderating perceived corporate image in the relationship or moderated - mediated relationship between these variables.
(Ennew & Binks, 1996)	The Impact of Service Quality and Service Characteristics on Customer Retention: Small Businesses and their Banks in the UK	Established a positive impact of aspects of functional and technical quality on loyalty and retention.	Did not consider the role of mediating variables such as customer perceived value or moderating perceived corporate image in the relationship or moderated - mediated relationship between these variables.
(Al-Hawari & Ward, 2006)	The effect of automated service quality on bank financial performance and the mediating role of customer retention	Confirmed that customer retention plays a significant mediating role on the relationship between automated service quality and bank financial performance	While the context was automated service quality (not mobile banking service quality), Customer retention was a mediator rather than the outcome

(Venetis & Ghauri, 2004)	Service quality and customer retention: building long-term relationships	Their Findings indicate that service quality indeed contributes to the long-term relationships and customer retention.	Did not consider the role of mediating variables such as customer perceived value or moderating perceived corporate image in the relationship or moderated - mediated relationship between these variables.
Hasan *et al*., (2013)	ATM Service Quality and its Effect on Customer Retention: A Case from Pakistani Banks	The result depicts that the satisfaction of the bank customers with ATM service quality leads to retain the customer with the bank	Used ATMSQUAL model while this study used M-S-QUAL in Pakistani Banks.
Prasad, (2015)	Role of Service Quality on Customer Retention in Banks	Established that customer retention is dependent on tangibles and reliability factors of SERVQUAL	Did not consider the role of mediating variables such as customer perceived value or moderating perceived corporate image in the relationship or moderated - mediated relationship between these variables.
(Hanaysha, 2018)	Customer retention and the mediating role of perceived value in retail industry	The findings indicate that perceived value has a significant positive effect on customer retention. The results revealed that the perceived value mediates the relationships between independent variables (social media marketing, corporate social responsibility, store environment and sales promotion) and customer retention	The mediating role of perceived value is in the context of retail industry and not in banking industry while the independent variable in not mobile banking service quality.
Jahanzeb et al., (2013)	How service quality influences brand equity: The dual mediating role of perceived value and corporate credibility	The results suggest that perceived value and corporate credibility fully mediate the relationship between perceived service quality and consumer based brand equity.	Did not consider the role of moderating variables such as perceived corporate image in the relationship. The outcome variable is not customer retention but brand equity.
Hapsari et al., (2016)	The mediating role of perceived value on the relationship between service quality and customer satisfaction: Evidence from Indonesian airline passengers	The finding documents that Indonesian airline passengers who perceived a higher value of service will also display a high level of satisfaction	Did not consider the role of moderating variables such as perceived corporate image in the relationship. The outcome variable was satisfaction rather than retention and the context was Indonesian airline passengers rather than bank customers
Nguyen & LeBlanc, (1998)	The mediating role of corporate image on customers' retention decisions: an investigation in financial services	The findings also show that customers receiving higher levels of service quality will form a favourable image of the banking institution.	Their context was Indonesian airline passengers and not bank customers

Gautam, (2011)	The Moderating Role of Corporate Image in the relationship between Perceived Justice and Recovery Satisfaction: Evidence from Indian Aviation Industry	The findings also show that corporate image plays a moderating role in the relationship between perceived justice dimensions and recovery satisfaction.	The variables are perceived justice dimensions and recovery satisfaction in the Indian Aviation Industry, unlike the study's variables of mobile banking service quality and customer retention in banking industry. They also did not consider the role of mediating variables such as customer perceived value
Rabach and Tarus,(2013)	Determinants of customer loyalty in Kenya: does corporate image play a moderating role?	Corporate image was found to moderate the relationship between service value, service quality, social pressure and customer loyalty.	The outcome variable is customer loyalty and not customer retention, the context was users of mobile services in Kenya as opposed to the study's users of mobile banking services in Kenya.
Rahi, (2016)	To investigate the relationship between customer perceived value and customer's perception of public relation on customer loyalty with moderating role of brand image.	Results depicted that brand image moderate the relationship with customer perceived value and customer's perception of public relation. In addition to that moderation was qasi that means a strong level of moderation exists.	The outcome variable is customer loyalty in banking sector of Pakistan.
(Wu, 2013)	The Effects of Service Quality, Perceived Value, Corporate Image, and Customer Satisfaction on Behavioural Intentions in the Taiwan Quick Service Restaurant Industry	A positive moderating effect of Perceived Value on Service Quality and Customer Satisfaction, is confirmed.	The context is in the Taiwan Quick Service Restaurant Industry, rather than banking industry. Much as the study tried to look at the interaction between the three key variables of this study, (mobile banking service quality, perceived value and corporate image), the outcome variable is customer satisfaction and behavioural intention as opposed to customer retention. Again the deviation is that perceived value is a moderating variable rather than a mediating variable
Shankar and Jebarajakirthy, (2019)	The influence of e-banking service quality on customer loyalty:A moderated mediation approach	indicates that the indirect effect of reliability on customer loyalty and privacy and security on customer loyalty, via initial trust, significantly increases as the consumer involvement level increases from low to high	The context was e-banking, while the outcome variables are customer loyalty and initial trust

Source: Survey Data (2020)

2.8 Conceptual Framework

This section discusses the study's conceptual framework and the hypotheses of the study. It describes the variables and discusses the relationships among the variables of the study. The framework provides a basis upon which hypotheses were developed to test the proposed relationships. Figure 2.4 (conceptual framework), illustrates that the study hypothesizes three direct effects; first, it is expected that mobile banking service quality has a direct effect on customer retention (H_{01}), secondly, it is expected that customer perceived value has a direct effect on customer retention, (H_{02}), and thirdly, it is expected that perceived corporate image has a direct effect on customer retention (H_{03}). The study also hypothesized that there is one mediating effect in this relationship, that is, it is expected that customer perceived value mediates the relationship between mobile banking service quality and customer retention (H_{04}).

The study also hypothesized three moderating effects. As portrayed in the conceptual framework (figure 2.4), it is expected that; perceived corporate image moderates the relationship between mobile banking service quality and customer perceived value (H_{05}), perceived corporate image moderates the relationship between mobile banking service quality and customer retention (H_{06}), and perceived corporate image moderates the relationship between customer perceived value and customer retention (H_{07}),

Furthermore, the study hypothesized a moderated-mediated relationship. As shown in the conceptual framework (figure 2.4), it is expected that perceived corporate image moderates the indirect relationship between mobile banking service quality and customer retention via customer perceived value (H_{08}).

Finally, The study also expects that other factors such as customer's gender, customer's age, customer's service experience, customer's level of education and customer's level of income may contribute to the relationships and as shown in the conceptual framework (figure 2.4), these factors are controlled.

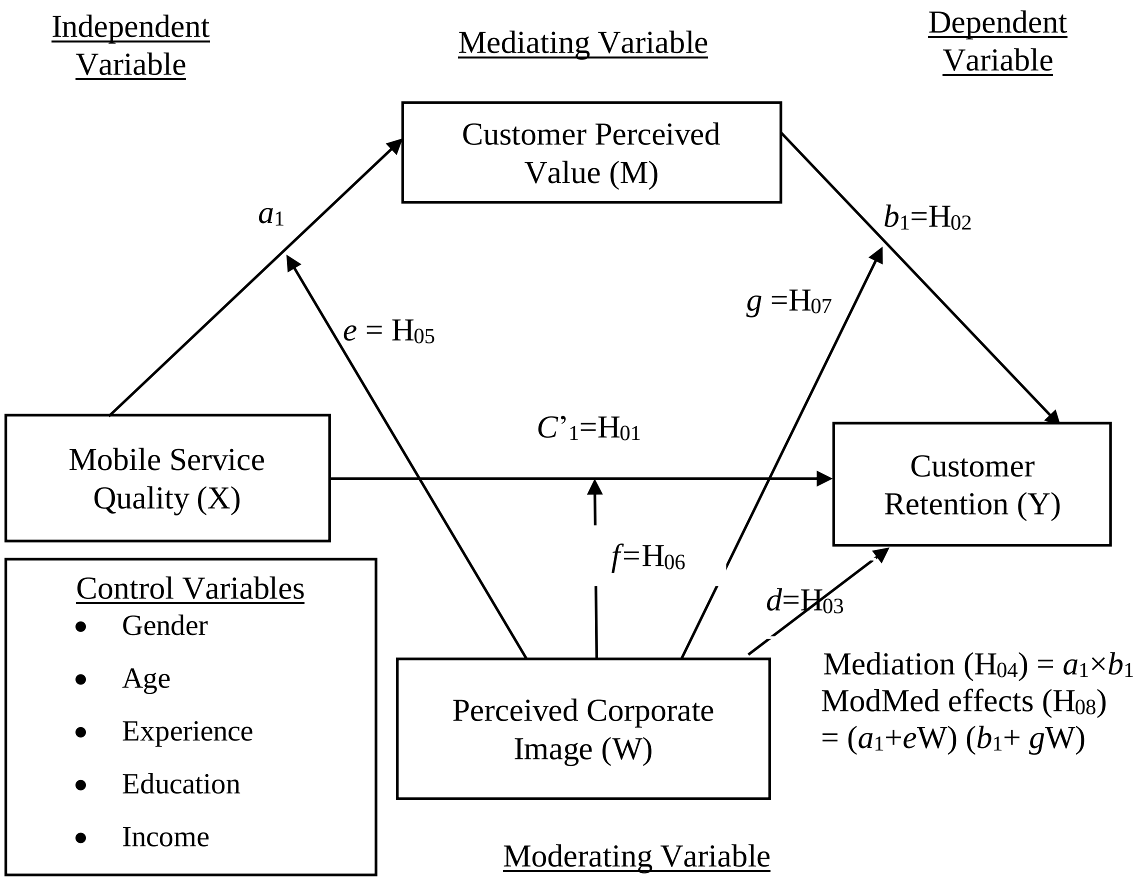


Figure 2. 4 Conceptual Framework

Source: Hayes (2018) Model 59

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discusses the research Philosophy, design, study area, target population, sampling design, data collection procedure and analysis, measurements of the variables, reliability and validity, data processing, and presentation and ethical consideration.

3.1 Philosophical Orientation

This study is hinged on the positivism philosophy. According to Creswell and Clark, (2017) Positivism is a deterministic philosophy in which causes probably determine effects or outcomes. Hence, the problems studied by positivists reflect a need to examine causes that influence outcomes. (De Vaus, 2002) argues that this philosophy is also reductionistic since it intends is to reduce the ideas into a small, discrete set of ideas to test, such as the variables that constitute hypotheses and research questions. The knowledge that develops through a positivist lens is based on careful observation and measurement of the objective reality that exists "out there" in the world. Thus, developing numeric measures of observations and studying the behaviour of individuals become paramount for a positivist. Finally, some laws or theories govern the world, and these need to be tested or verified and refined so that the world can be understood. Hence, the scientific method and the accepted approach to research by positivists is where an individual begins with a theory, collects data that either supports or refutes the theory, and then makes necessary revisions before additional tests are conducted Creswell, (2003). In this study, the aim was to explore the effect of mobile banking service quality on customer retention while also trying to understand the extend in which customer perceived value and perceived corporate image mediates and moderate its effects on the customer retention in the banking industry in Kenya respectfully. Thus, the positivism philosophy is applicable in this study because it is believed that mobile banking service quality, customer perceived value, perceived corporate image and customer retention are concepts that are defined objectively in established theoretical frameworks and severally tested and structured instruments are available for assessing and analyzing for generalizations from the findings.

3.2 Research Design

Research design is an outline of the systematic and scientific procedures adopted in conducting a study Saunders *et al*., (2007). According to Saunders *et al*., (2007) research design is characterized by five components namely; research philosophy, research purpose, research approach, time horizon, and research strategy. The research purpose is the broad aim of the research. The purpose of every research may be classified as exploratory/descriptive or explanatory Saunders *et al*., (2007). They aver that exploratory research is applicable in case the study entails document analysis, expert's opinion, and focus group interviews, while descriptive research is concerned with portraying an accurate profile of persons, events or situations Saunders *et al*., (2007). Explanatory studies, on the other hand, aims at establishing relationships between variables. In other words, explanatory research is concerned with cause and effects analysis. The purpose of this study is to examine the mediated effect of customer perceived value, on the relationship between mobile banking service quality and customer retention in the Kenyan banking industry. Hence, this study is explanatory in purpose.

Another important consideration according to (Anh, 2013; Saunders *et al*., 2009) is the research approach. They identified two research approaches namely, deductive, and inductive. The inductive approach they argued, involves collecting data and developing theory thereafter from the findings. While deductive approach on the other hand deals with causal relationships between variables. Hence, this study uses the deductive approach.

In terms of time horizon, a research design can be longitudinal or cross-sectional. Cross-sectional research studies examine a particular issue at a point in time by considering more cases Saunders *et al*., (2007). Whereas longitudinal studies, on the other hand, examine a particular issue over some time. This normally involves the use of time-series information. This study is a cross-sectional study because data was collected from a cross-section of mobile banking customers in the Kenyan banking industry.

Finally, research strategy describes the way and manner the purpose of the research is achieved. According to Saunders *et al*., (2007), the most common research strategies are action research, ethnographic studies, experiments, survey studies, case studies, and grounded theory. This study is survey-based because it sought to obtain the opinion of a population about mobile banking service quality and their perception of value through a qualitative technique. The survey method's advantages include ease of distribution, the ability to analyze results using different statistical software, and the fact that it is a cost-effective method of data collection, especially for studies that require a large sample size (Alshurideh, 2010).

3.3 Study Area

The study focused on customer retention among the consumers of mobile banking services in the Kenyan banking sector and specifically covered consumers of these banking services drawn from public and private universities in Nairobi county. The county was chosen because of its cosmopolitan nature as is it is the commercial and administrative capital city of Kenya. Nairobi also hosts the headquarters of most of the banking institutions and main campuses of a majority of universities in Kenya.

The central location survey adopted by this study is a qualitative market research approach in which research takes place in a specific, controlled environment such as a shopping mall, restaurant, school, church, community centre, hotel, testing lab, or other suitable location. This method is increasingly being employed in marketing research just as telephone surveys and mall-intercept approach Abu Bakar, (2015). The popularity of central location surveys appears to be a worldwide trend, most personal interviews are conducted at a central location (that is in a market or shopping centre), or in the streets (France and the Netherlands), or at home, or work rutted Kingdom and Switzerland Abu Bakar, (2015), or at a university Chepkwony *et al*., (2012).

There are several benefits of this approach as offered by Zikmund *et al*.,(2013), including; (1) the convenience of using a central location frequented by large numbers of the target population; (2) an inexpensive way to collect data since no travel is required to the respondent’s home, the respondent comes to their workplace; (3) it is a relatively fast way to collect the data; and (4) it generates a higher response rate.

3.4 Target Population

A population is described by Alshurideh, (2010) as the totality of items or things under consideration. In this study, the population of interest are consumers of mobile banking services in Kenya. This is because the proposed study aims to provide a comprehensible picture of the effect of mobile banking service quality on customer retention; thus, it is important to include possible participants, especially those who are currently using mobile banking services. According to a survey by (KBA, 2014), the total number of mobile banking service subscribers were seventeen million (17,000,000). They projected an average growth rate in subscription per annum at ten per cent (10% per annum). It was then estimated that this number would reach twenty-seven million (27 million) in 2019 with an expected mobile banking service subscription rate increase at 10 per cent per annum.

3.5 Sample Size

Determining sample size is considered one of the more controversial elements in research design and sampling procedures for the majority of studies Alshurideh, (2010). This is because drawing a large sample may waste time, resources and money while on the other hand, a small sample may not give accurate results, which will, in turn, affect the research's validity and reliability.

Different ideas for the determination of sample size have been fronted by different authors over time. For example, early researchers such as Nunnally and Bernstein, (1978) suggested the rule of thumb ratio, by which they proposed that the number of subjects-to- item ratio should be at least 10:1 and while Gorsuch (1983) as adopted by Hatcher and George (2004) recommended a 5:1 ratio. Comfrey and Lee (1992), suggested rough guidelines for determining adequate sample size: 50-very poor, 100-poor, 200-fair, 300- good, 500-very good, 1000 or more excellent. This study however adopted the recommendations of Noorzai (2005, cited in Wimmer and Dominick, 1991) who recommended that researchers should use as large a sample as possible within the economic constraints of the study.

Much of previous studies have a consensus that the extent of the precision and confidence desired main element that would affect a sample size (Sekaran, 2000). This study followed the recommendations of Alshurideh, (2010), who while Citing

Freedman et al. (1978), explained that, for most social sciences studies, the standard error is 5 per cent.

Different statistical formulae have been proposed to be used to measure sample size. The most effective and simplest equation which was adopted in this study was proposed by Yamane, (1978), which is used by many scholars such as Bell & Bryman (2003), and Alshurideh, (2010). The sample size was determined using the formula;

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

Where, n = sample size, N= population size, e= the error of sampling. This formula was used to calculate the sample size as follows;

$$n = \frac{27{,}378{,}670}{1 + 27{,}378{,}670\ (0.05)^2}$$

$$n = \frac{27{,}378{,}670}{27{,}378{,}671 \times 0025} = 400$$

Based on this reasoning, a sample size of 400 respondents was determined for this study.

3.6 Sampling Technique

Most consumer behaviour studies use a multistage sampling technique, which was adapted to collect data from more the 400 mobile banking users. According to Zikmund and Carr, (2009), multistage sampling involves using a combination of two or more probability sampling techniques. The first stage is the choice of study location, Nairobi County is purposively chosen based on the fact that it is the country’s capital city and the fact that most of the banks’ headquarters are domiciled in the county.

The second stage is the choice of the location for the survey. As was indicated in 3.1, the study adopted a central location survey universities were chosen to draw respondents from. The reason behind the selection of university staff is that the staff are mostly the target market of the mobile banking service providers and they are more informed and vigilant towards quality factors and the changes in the banking sector. Previous studies, for instance, Ahmed *et al*., (2010) have based their criteria for the selection of university staff on the fact that the university staff are more attracted to promotional and advertisement activities of banking service providers. Nairobi city county is also hosting a greater number of public and private universities in Kenya. According to (uniRank™, 2020), twenty-five (25) out of fifty-two (52) chartered universities are based in the city of Nairobi. Out of the twenty-five chartered universities whose main campuses are based in Nairobi, six (6) public chartered universities. They are; Agriculture and Technology (4), Technical University of Kenya, (5) Multimedia University of Kenya (6) The Co-operative University of Kenya, while nineteen (19) are private chartered universities which include; (1) Strathmore University, (2) United States International University Africa, (3) The Catholic University of Eastern Africa, (4) Africa Nazarene University, (5) Daystar University, (6) KCA University, (7) Riara University, (8) Africa International University, (9) International Leadership University, Kenya, (10) Pan Africa Christian University, (11) Management University of Africa, (12) Amref International University, (13) Adventist University of Africa, (14) Pioneer International University, (15) Zetech University, (16) KAG East University, (17) Kiriri Women's University of Science and Technology, (18) The East African University, and (19) RAF International University. Cluster sampling technique was employed. The Universities listed were clustered into two; public and private. Each cluster was used to randomly select the four (4) universities where respondents would be drawn from. Two (2) public universities and two (2) private universities were based on the list of Commission for University Education Accredited Universities - November 2017.

The third stage was the choice of a university staff who formed the study's unit of analysis. Here, systematic sampling was then employed which will allow every K^{th} element in the population to be sampled from a list of staff that was obtained from the university and for the university with a staff population of more than one thousand staff, one academic department was randomly selected.

Proportionate sample sizes (n) was determined for each of the universities based on the staff population (N). Sampling interval (K) was then identified for each university by dividing the staff population by the sample size [$k = N/n$]. Beginning with a random start that was identified using an online random number generator to the K^{th} number K Chepkwony *et al*., (2012). Table 3.2 shows the sample frame

Table 3.1: Sample Frame

S no	Name of the University	Target population	Percentage	Proportionate sample size
1	Kenyatta University (KU)	3000	76	303
2	The Co-operative University of Kenya (CUK)	280	7	28
3	Catholic University of East Africa (CUEA)	450	11	46
4	Africa Nazarene University	228	6	23
	TOTAL	3958	100	400

Source: Survey Data (2020)

3.7 Data Collection Instrument

A questionnaire was used as the only data collection method in this study. A questionnaire is a research instrument defined by Saunders *et al*., (2009), cited in (Alshurideh, 2010) as "all techniques of data collection in which each person is asked to respond to the same set of questions in a predetermined order”. The questionnaire in this study aimed at collecting the required primary and factual data from users of mobile banking services in Kenya by developing and administering standardized groups of questions within one questionnaire to a sample of users of mobile banking services.

3.7.1 The rationale behind use of a questionnaire

Based on Sekaran and Bougie, (2016) recommendation, this method was chosen because it offers certain benefits: it is cheap, can be quickly distributed and collected, produces a reasonable response rate, and is easy to structure and organize. From the respondent’s point of view, a questionnaire is a common method of collecting data and the majority of people are familiar with it. Furthermore, when a participant receives a questionnaire, he or she feels free to complete it without any interruptions that might occur with the other methods. However, a written questionnaire is not an appropriate data collection method for poorly-educated people. Another important reason for using a written questionnaire minimizes is that it minimizes the levels of subscriber bias because all participants receive the same uniform groups of questions and are not influenced by the interviewer’s verbal or visual clues when answering the questions, which can often happen with face-to-face interviews. This view is confirmed by Alshurideh, (2010), who claimed that interviewer actions such as voice mannerisms and inflexions can influence the respondents. However, the absence of an interviewer minimizes the chance to explore specific responses, especially ones related to behaviour intention. This study employed a self-reported questionnaire which was distributed and collected in the period between June 4th 2019 and 21st 2019 in Nairobi, Kenya.

3.7.2 Questionnaire Design and Pre-test

This study adopted the recommendation of Alshurideh, (2010), who argued that a research questionnaire should be constructed in a way that translates the research objectives according to the theory in hand and divides them into specific questions within different sections that should follow a basic, smooth sequence.

The study questionnaire has been divided into four sections. The first part of the questionnaire contains the independent variable – Mobile Banking Service Quality (MSQ). The section has seventeen (17) questions that are aimed at collecting data on customers' opinions towards the quality of their bank's Mobile Banking Services such as; efficiency, fulfilment, Reliability, responsiveness and privacy. The second part of the questionnaire is the mediating variable- customer perceived value (CPV). This section has five (5) questions that sought the customer's perceptions on the quality of their banks' mobile banking services. The third part questionnaire is the moderating variable- perceived corporate image (PCI) which seven (7) questions aimed at collecting data on the customers' perceptions of their banks' corporate image. The section was followed by the dependent variable – customer retention (CRN), the section had four (4) questions that sought the customers' view on continued usage of mobile banking services offered by their banks. All the constructs in these sections were assessed by a multiple item approach in consistent with (J. Hair et al., 2010) recommendation of at least four items per construct. The multi-item approach enables effective reliability and hypothesis testing. Finally, the fifth and the last part of the questionnaire is a demographic profile of the respondents. The section sought to establish the characteristics of mobile banking service customers including; gender, age, customer service experience, customer's level of education and customer's income. Demographic characteristics of the respondents were assessed in this section on ordinal scales.

Since the unit of inquiry covered customers, the items were standardized, and this simplified data aggregation at the data processing stage. The instrument was then pre-tested, and this validation exercise was to confirm the adequacy and internal consistency of the measurement scales; this, therefore, covered tests for validity and reliability of the instruments. A content validity index of greater than 0.7 was got for all the constructs studied and all matters raised by the experts and supervisors were addressed in the final instrument.

Questionnaires earlier developed and tested by Surendra, (2015), Akinci *et al*., (2010), Siu *et al*., (2013) and (Yang & Peterson, 2004) were adopted and modified to match the study context. This effort yielded an instrument of a five-point scale established to assess the extent to which mobile banking service quality affects customer retention; customer perceived value mediates the relationship between mobile banking service quality and customer retention; perceived corporate image moderates the relationship between mobile banking service quality, customer perceived value and customer retention and finally to assess the extent to which perceived corporate image moderates the indirect relationship between mobile banking service quality and customer retention via customer perceived value in Kenya's Banking Industry. The selection of the listed demographic variables is informed by previous proven empirical relationships.

3.8 Measurement of Study Variables

The search of the extant literature established that most of the research involving these dimensions were inadequately developed and validated in dissimilar contexts. In order to ensure content validity, measures that had been used in previous studies were adopted. In line with measurement used in previous studies, a five-point Likert scale was adopted for all item scales ranging from 1= strongly disagree to 5= strongly agree. The researcher opted to adopt the recommendation of Baka *et al.*, (2012), to create a 'not sure' middle point which is essential in some scales where respondents may simply not have an opinion or to account for the respondent's lack of knowledge or indifference, ambivalence or indecisiveness, and dispute of the question. The use of the scales with a neutral point was deemed appropriate since previous studies reported that it leads to increase response rate and reduce the possibility of low reliability that could be caused by random guessing and forced answers Chung *et al*., (2015). Though the adopted measures were tested before and used in other studies and found to be valid and reliable, they were further tested for reliability and validity to confirm their applicability in this study and in Kenya's banking context.

3.8.1 Measurement of Mobile Banking Service Quality

The three dimensions of mobile banking service quality; Mobile Banking- efficiency and convenience, Mobile Banking- Reliability and Responsiveness and Mobile Banking- Assurance and Security were measured using seventeen items adapted from (Surendra, 2015).

Consequently, the dimension- Mobile Banking- efficiency and convenience was measured using four items. These are; Using Mobile Banking saves time compared to going branch/ATM; Mobile Banking makes transactions easier, for example transferring funds, bill payments etc.; The interaction with the mobile banking systems is clear and understandable; Mobile Banking creates a positive experience for me; It is easy to look for banking information while using mobile banking.

Seven items were used to measure Mobile Banking- Reliability and Responsiveness. The items are: My mobile banking transactions are processed accurately. My mobile banking provides accurate records of my transactions. My mobile banking meets my expectations, My Mobile banking transactions' confirmation details are sent by SMS /email immediately. The Bank quickly resolves Mobile Banking related problems; if there is any mistake, my mobile banking make it correct quickly, and my mobile banking provides prompt responses if my transaction is not processed.

Mobile Banking: Assurance and Security was measured using five items. These are; I feel safe while doing my mobile banking transactions, I have full trust in my bank's Mobile banking services, I am sure; bank does not misuse my personal information, I feel secure in providing sensitive information while doing mobile banking transaction, Risk associated with my bank's mobile banking services is low.

The items under the mobile banking service quality dimension adopted a 5-point Likert-type scale indicating the extent of agreement or disagreement with a given statement, 1- Strongly Disagree, 2- Disagree, 3-Not Sure, 4- Agree, and 5-Strongly Agree

3.8.2 Measurement of Customer Retention

Customer retention, in this study, was defined as the propensity of a Mobile banking service customer to stay with his/her bank in the foreseeable future. Accordingly, this study measured customer retention by adapting a four-item scale Siu *et al*., (2013), as was also adapted by (Hanaysha, 2017), on five-point Likert-type scale with anchors "1=strongly disagree" and "5=strongly agree". The four questions in the questionnaire under Customer Retention are; I will re-patronize my bank's mobile banking services for the foreseeable future, I would recommend my bank's mobile banking services to my relatives and friends, Given choices of other mobile banking services of other banks, I will remain as a customer to my bank, I intent to increase the usage of the various mobile banking services offered by my bank.

3.8.3 Measurement of Customer Perceived Value

Customer Perceived value is defined in this study as ‘‘the consumer’s overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given’’. To measure customer perceived value, this study used an adaptation of the GLOVAL scale, validated by Yang and Peterson,(2004), to the context of this specific study on a five-point Likert-type scale with anchors "1=strongly disagree" and "5=strongly agree". It was necessary to re-construct some items so as to align to the mobile banking and to eliminate some other items that were felt not relevant in the context Mobile banking service quality. Finally, the five questions in the questionnaire under Customer Perceived Value are; Continuous innovations to mobile banking service makes me feel good, get good value from the mobile banking services for a reasonable price, I don’t mind sacrificing time and efforts to access and use mobile banking services, Compared with other bank’s services such ATM, it is wise to choose this mobile banking services, I believe that mobile banking services are designed with customer’s best interests at heart.

3.8.4 Measurement of Perceived Corporate Image

Corporate image is generally defined as “the net result of the interaction of all experiences, impressions, beliefs, feelings and knowledge people have about a company”. Therefore, the idea of corporate image could only be assessed by referencing specific companies in asking for consumer feedback. Hence, in the context if this study, respondents’ specific banks (My bank) were referenced on the evaluation questionnaires.

This study used an eight items scale to measure perceived corporate image adopted from Nguyen and Leblanc,(2001). Respondents were required to respond to the extent of agreement or disagreement with these statements; My bank is innovative and pioneering; My bank has a good reputation; My bank has a better image than its competitors; My bank does its business in an ethical way; My bank is open and responsive to consumers; My bank contributes to the society; In my opinion, my bank has a good image in the minds of its customers; Overall, I have a good impression of my Bank.

3.9 Reliability and Validity of Research Instrument Validity

3.9.1 Validity Testing

Validity is concerned with the meaningfulness of research components. Validity of a scale seeks to determine the extent to which differences in observed scale scores reflect the true differences among objects or the characteristics being measured.This study adopted the approach of Malhotra and Dash,(2016) where face validity, content validity and discriminant validity were assessed in the study. Face validity refers to the extent to which the measured variable appears to be an adequate measure of the conceptual variables. To check face validity of the instrument, the study adopted existing scales from existing literature with a few modifications to measure the variables.

Secondly, the content validity was tested through pre-testing of the initial version of the instruments with five academicians/readers (who have been using mobile banking for long time) as a panel of judges. Some items were modified and deleted to ensure content, clarity and meaningfulness. An additional in-depth inquiry was conducted through two customer care experts from two commercial banks. The input from the two groups was incorporated in modification of the research instrument.

Lastly, discriminant validity was also tested. Discriminant validity distinguishes the reflection of the items to a specific construct from the items that reflect other constructs. It confirms that items that are not supposed to be related are actually unrelated. To gain understanding of the underlying constructs in the variables as recommended by Zait and BERTEA,(2011), all the items were factor analyzed with the construct configuration obtained through principal component analysis (PCA) using Kaiser–Meyer–Olkin (KMO) test of sample adequacy and Bartlett test of sphericity. Factor loadings for all the items were then assessed with any item with factor loadings less than the recommended threshold of 0.5 being dropped Taherdoost *et al*., (2014). The components extracted were required to meet the minimum recommended Eigen value of greater than one (Osborne and Waters, (2002). As Hair *et al*., (2009) points out, Eigen value reflects the amount of variance accounted for by a factor. To determine the sample adequacy for factor analysis, the study used KMO tests of sample adequacy and Bartlets test of sphericity. Furthermore, Hair *et al*., (2006) recommends KMO as the most appropriate test of a correlation matrix for purposes of conducting a factor analysis. Tabachnick & Fidell, (2001) recommend a KMO of 0.6 and higher as the acceptable threshold. Moreover, the Bartlett‘s test of sphericity provides a chi square output that must be significant to confirm that the matrix is not an identity matrix, hence confirming that a linear combination exists (Taherdoost *et al*., 2014). The study further adopted Varimax procedure for orthogonal rotation to maximize loadings on the factors and minimize the number of components as recommended by Malhotra and Dash, (2016).

3.9.2 Reliability Testing

The study also found it important to assess the reliability of the tool that was used to collect information so as to determine the internal consistency of the tool. According to Bryman and Bell, (2011), reliability is the extent to which measurements are repeatable implying that when different persons perform the measurements, on different occasions, under different conditions, with supposedly alternative instruments which measure the same thing. The study used Cronbach‘s alpha since it is the most widely used measure of reliability of the data collection instrument in determining the internal consistency (Drost, 2011). Internal consistency measures consistency within the instrument and questions how well a set of items measures a particular behaviour or characteristic within the test (Drost, 2011). Based on Cronbach’s alpha threshold of 0.8 all the three constructs were tested to determine their levels of reliability. According to Furthermore, Hair *et al*., (2010) maintains that a Cronbach‘s alpha of 0.7 and above signals high levels of reliability. In this study, the study first determined the reliability of the individual dimensions, then for the constructs and finally the reliability of the entire tool. In addition to Cronbach’s alpha, Composite reliability was also computed to assess the internal consistency adapting the recommendations of Hair *et al*., (2009) that average variance extracted (AVE) and composite reliability (CR) as the most appropriate in assessing the internal consistency of measures.

3.9.3 Pilot Test

A pilot study is a trial run-through to test the research design with a small sample of respondents who have similar characteristics to those identified in the main study sample, (Alshurideh, 2010). The piloting stage is necessary as it is not easy to anticipate how the target sample will respond and react to the survey questions. In addition, it provides an opportunity to identify and correct any potential problems in the format of the research questions. According to Alshurideh, (2010), pilot studies in social studies serves to achieve various aims including the preparation for the main study and to pre-test a particular study instrument.

The main roles of the pilot study in this study were to examine the true relations among variables and the flow of effect between the study dimensions. The minor roles were to test the adequacy of the research instrument and enhance the questionnaire's internal validity by eliminating unnecessary questions or amending others to remove any ambiguities. Therefore, 30 draft questionnaires were randomly distributed to 30 respondents for pre-testing the instrument during February and March, 2009, to post graduate students of Moi University who confirmed that they were users of mobile banking services. 27 questionnaires were collected within two weeks of distribution and only 20 accurately completed questionnaires were used in the analysis stage, giving a valid response rate of 66.6%. The responses were analyzed using SPSS. The results of the pilot test were evaluated using many measurement analysis outcomes such as reliability, normality, and correlations.

The goals of analyzing initial data and testing the study instrument were achieved in this stage. In general, the respondents provided very important feedback and comments on the clarity of some questions which helped in evaluating the language, wording, and misunderstandings in a few of the statements in the questionnaire. On the advice from the supervisors and experts in the research field, the items identified to sensitive, confusing, ambiguous or biased in any way were modified or omitted to increase content validity of the instrument. The results indicated that all items were reliable with Cronbach Alpha scores above .7

3.10 Data Collection Instrument and Procedure

Before commencing the process of data collection, a letter of introduction as a postgraduate student was obtained from the Dean- School of Business and Economics of Moi University. In addition, a research permit was obtained from the National Council for Science, Technology, and Innovation (NACOSTI).

Self-administered questionnaire technique was employed for this data collection exercise. The face to face interactions with the respondents was deemed appropriate where the researcher and the research assistants had the opportunity to clarify questions to the respondents hence minimizing problems of missing data. The process of data collection was carried over a five-day period running from Monday to Friday, starting at 8.00 am up to 5.00 pm in the four universities for a period of three weeks, (June 4^{th} to 21^{st} 2019).

3.11 Data Entry and Verification

According to Hair *et al*., (2010) data analysis involves summarizing relevant details from the gathered data, and applying reasoning to reveal consistent patterns. Data processing on the other hand involves editing, classifying and tabulating the data Hair *et al*., (2010). Before the data was analyzed, data was cleaned to check for errors and completeness. Data was then coded using the Statistical Package for Social Scientist (SPSS version 21). The data coding exercise was conducted by the lead researcher in a period of 21 days. Accuracy was maintained during data coding and entry. Further, data exploration is conducted to investigate any missing values or outliers.

3.12 Missing Data Detection and Treatment

Presence of missing data is an indication that the respondent failed to deliver answer concerning one or more questions which can threaten the validity of the findings

O'Kelly and Ratitch, (2014). As observed by Hair *et al*., (2010), it is difficult to avoid missing values in survey designs. Common sources of missing values is as a result of respondent's intentional or non-intentional omission of questions as well as data coding error or entry errors. Following the advice of Mattei *et al*., (2011), steps taken to minimize missing data for this study included adoption of interviewer-administered questionnaire technique and careful data coding.

Upon running frequency analysis, missing values where identified. As recommended by Hair *et al*., (2010), Little's Missing Completely at Random test was carried out to assess whether the missing values where random. The results indicated a p-value greater than 0.05 thereby failing to reject null hypothesis which stated that there is existing pattern in the missing data. Further, imputation technique was used in treatment of the missing values Hair *et al*., (2010). Specifically, linear interpolation method was used. It was deemed fit for this data since it takes into consideration the original association among the variables. Moreover, it is preferred for its simplicity. The next process entailed checking for any outliers.

3.13 Data Outliers Detection and Treatment

Outliers are a minority of observations in a data set which display different patterns from the majority of the observations in the data set Chatterjee and Hadi, (2009). Such values appear exceptionally higher or lower than the majority of data observations. The presence of outliers in a data set is dramatic. It leads to a wrong estimation of the parameters such as overestimating the R-values which consequently underestimates the relationship between the variables. Moreover, the resulting biases in the mean with overstated standard deviation values is potential to affect the data normality Hair *et al*., (2010).

It has however been established by (Aguinis et al., 2013; Simiyu, 2021) that not all outliers are harmful, problematic, or nuisance that must be fixed by removing them from the analysis. Aguinis *et al.*,(2013) identified three categories of outliers; error outliers, interesting outliers, and influential outliers. Error outliers are data points which lie at a distance from other data points because of inaccuracies in sampling procedures, observation, recording, data preparation, computation, coding, or error in data manipulation (Aguinis et al., 2013; Simiyu, 2021). Aguinis *et al.*,(2013) recommends that when error outliers are identified, the correct procedure is either to adjust the data points to their correct values or to remove such observations from the data set. Additionally, they aver that the rationale behind the classification of the outlier as an error outlier must be explained in detail. Interesting outliers on the other hand which is the second category of outliers identified by Aguinis *et al.*,(2013) are outlying data points that are accurate, which lie at a distance from others, (for example, a group of worst performing students vis-à-vis top performers in a class). If studied, data points may contain valuable knowledge, or lead to novel theoretical insights (Gibbert et al., 2021). It is therefore recommended that these type of outliers should not be deleted or removed but further research should be carried out on them as they may contain unexpected knowledge (Aguinis et al., 2013; Simiyu, 2021).

Finally, the influential outliers which is third category of outliers identified by Aguinis *et al.,* (2013), are either model fit or prediction outliers. According to Aguinis *et al.,* (2013), model fit outliers are data points whose presence alters the fit of a model (R2,ΔR2) and prediction outliers are data points whose presence alters the estimation of the parameters. Aguinis *et al.,* (2013) suggests that once these type of outliers have been identified, the best way is to either delete or remove them from the data set, use re-specification method by adding additional terms to the regression equation or use of robust approaches which involves a non-OLS standard such as least absolute deviation, least trimmed squares, M-estimation, and Bayesian statistics. This study identified outliers through Mahalanobis Distance with $p < .001$.

3.14 Analysis and Presentation

The entire process used SPSS version 21. This software was also employed for descriptive statistics for socio-demographics and test of assumption including normality checks in which values of skewness and kurtosis were evaluated, multi-Colinearity, homoscedasticity, and outliers. Furthermore, internal consistency of the research instrument was checked using Cronbach‘s alpha.

Confirmatory factor analysis with Varimax rotation was used to ascertain the validity of the scales and structural relationships among the exogenous and latent concepts. All the items used in measuring particular variables were required to meet a factor loading threshold of 0.5 and above with any item having factor loadings less than 0.5 being dropped entirely Hair *et al*., (2010). Moreover, where items were dropped, a further factor analysis was conducted on the remaining items. Additionally, factor components were required to meet the minimum Eigen value requirement of 1. The constructs in the research tool were measured using a combined total of twenty-five items. An average score for the multiple items of each construct were therefore computed to arrive at a composite value and this is what was used in further multiple and correlation analysis Wang and Benbasat, (2007). Pearson correlations were conducted to check the relationship between the variables.

The regression analysis was also conducted to test the model fit and to establish the predictive power of the models in criterion variable. Though there are quite number of methods of regression such as forced entry, hierarchical method and stepwise methods, (Field *et al*., 2012; Andy Field, 2009, 2013a), this study used hierarchical regression approach to test the control variables and all the direct effect hypotheses because of its capacity to indicate precisely what happens to the model as different predictor variables are introduced in the model. This gave the researcher a chance to systematically follow the contribution of each independent variable in explaining the predictive power of the model.

On the other hand, multiple regression model using Hayes (2018), Process Macro (model 4 and model 59) were used to test mediation, moderation, and moderated mediation hypotheses respectfully.

3.15 Testing for Statistical Assumptions

Testing of assumptions is an important task for the researcher utilizing multiple regression, or indeed any statistical technique. Serious assumption violations can result in biased estimates of relationships, over or under-confident estimates of the precision of regression coefficients (biased standard errors), and untrustworthy confidence intervals and significance tests Williams *et al.,* (2013).

Prior to data analysis, the assumptions of regression were tested to ensure model robustness. Since any violation of regression assumptions could have led to unreliable results. The statistical tests of the regression assumptions were done on the study variables that emerged after conducting factor analysis namely; mobile banking service, customer perceived value and customer retention and perceived corporate image to ensure the results of the analysis were trustworthy and not misleading. As Zikmund and Carr, (2009) points out, if the assumptions are violated, the results can lead to the making of wrong conclusions for instance resulting in a Type I error (when the study concludes that there is a statistical difference when in reality one does not exist). The assumptions that this study tested include: all variables are normally distributed: linearity of each of the independent variables with the dependent variable; singularity and outliers: equal variance of the dependent variable across a range of independent variables (homoscedasticity), and no multi-collinearity.

3.15.1 Normality Test

Normality of distribution is one of the major assumptions of regression models. Normality is the assumption that the scores on a continuous variable are normally distributed about the mean Schmidt and Finan, (2018). Therefore, passing normality tests indicates that there is no significant departure from the normality identified. In this study, normality test was done using Kurtosis, skewness tests, and Shapiro-wilk test.

3.15.2 Linearity Test

Multiple regressions assume a linear relationship must exist if one is to correctly estimate the relationship between the dependent and independent variables. Linearity of the relationship between independent and dependent variable represents the degree to which the change in dependent variable is associated with the independent variable. It has been noted that non-linear relationships between the independent variable and dependent variable increases the risk of type II error in the results of regression analysis since the true relationship will be underestimated.

Linearity was tested using correlations among variables and bivariate which according to Hair *et al*., (2006) is the most common way to identify any nonlinear patterns in the data. Additionally, scrutiny of the inter-correlations among pairs of independent variables is essential in detecting possible occurrence of multi-collinearity. Multi-collinearity is a phenomenon in which two or more predictor variables in a multiple regression model are highly correlated.

In this regard, multi-collinearity was tested using tolerance and VIF, meaning that one can be linearly predicted from the others with non-trivial degree of accuracy. The acceptable tolerance values is that it should be more than 0.1 while the values for variance inflation factor (VIF) is that they should be less than 10 implying that multi-collinearity issues do not exist Dootson *et al*., (2016).

3.15.3 Multicollinearity

Multicollinearity occurs when there is a strong correlation among the independent variables in a regression model Field, (2013). It may also, be due to the combined effort of two more predictor variables. Presence of Multicollinearity among the independent variables is detrimental because decreases the total variance explained by those variables thus reducing the reliability of the results Hair *et al*., (2010). Therefore, to ensure that parameter of estimates obtained is reliable, the data set should be free of Multicollinearity. The first indicator of multicollinearity problem can be identified from the correlation matrix producing a correlation co-efficient of more than 0.80. To further assess Multicollinearity, tolerance values and variance inflation factors (VIF) are computed. Tolerance, which is the direct measure of multicollinearity, indicates the amount of variability of the selected dependent variable not explained by the other independent variables. High tolerance value indicates a small degrees of multicollinearity. In other words, a suggested cut-off for the tolerance value is 0.1.

On the other hand VIF, which is an inverse of tolerance value, indicates the degree to which standard errors have been increased due to Multicollinearity. The effect of increased standard errors is that, it makes the confidence intervals around estimated coefficients larger, thus, making it harder to demonstrate that the coefficient is significantly different from zero. Consequently, a VIF cut-off of below 10 is required.

In this study, Multicollinearity was be assessed by means of tolerance and Variance Inflation Factor (VIF) values an approach proposed by Hair *et al*., (2010).

3.15.4 Homoscedasticity Tests

Homoscedasticity refers to the assumption that dependent variable exhibits similar amounts of variance across the range of values for independent variable around the regression line, meaning they have equal spread. Homoscedasticity is necessary to limit the concentration of variance between the independent and dependent variable Hair *et al*., (2010). Violation of this assumption is referred to as heteroscedasticity and this can have adverse consequences for the efficiency of estimators, so it is important to detect the variance heterogeneity in regression analysis‖ Field, (2013). Moreover, Greener, (2008) argues that heteroscedasticity can result to the Ordinary Least Squares (OLS) estimators suffering from gross inefficiency. Heteroscedasticity may lead to misleading results and increase the likelihood of type 1 error occurring. It is however not uncommon to find this assumption violated hence the need to carry out assessment tests that may confirm any possible violation Zambom & Kim, (2017).

There are several methods that may be used to detect cases of heteroscedasticity in the data. These methods comprise of the graphical and non-graphical procedures and this study both methods were used. The most common graphical procedure is uses of standardized scatter plots Lin and Wei, (2003). Moreover, for heteroscedasticity detection, the usual graphical procedure consists of plotting the ordinary least squares residuals against fitted values or an explanatory variable. A megaphone-shaped pattern is taken as evidence that the variance depends on the quantity plotted on the abscissa Zambom & Kim, (2017).

According to Garson, (2012), heteroscedasticity manifests by having higher residuals for some portions of the range when compared with others. However, when the assumption of homoscedasticity is met, residuals tend to form pattern less cloud of dots. Additionally, the study used the Levine's test of homogeneity to detect cases of heterogeneity. According to Garson (2012), Levine's test of homogeneity is the most common test of homoscedasticity and it tests the assumption that each group of one or more categorical independent variables has the same variance on an interval dependent. The study rejects the null hypothesis that the groups have equal variances if the Levin statistic is significant at 0.5.

3.16 Model Specification

The following statistical models were used in testing the hypotheses in this study.

Model 1: Hierarchical Regression Model

This model was used to test the effect of control variables and all the direct effects hypotheses on the dependent variable.

i. $Y = \beta_0 + \beta_1$ gender + β_2 age + β_3 education level + β_4 experience + β_5 income + ε (Testing the effect of the control variables on the dependent variable)

ii. $Y = C_0' + C + C_1'X + \varepsilon$ (H_{01}) (Testing the effect of the Independent variable on the dependent variable while holding constant the control)

iii. $Y = b_0' + C + C_1'X + b_1M + \varepsilon$ (H_{02}) (Testing the effect of the Mediating variable on the dependent variable while holding constant the controls and Independent variable)

iv. $Y = C_0' + C + C_1'X + b_1M + C_2'W + \varepsilon$ (H_{03}) (This model was used to test the effect of the moderator variable on the dependent variable as the controls, Independent and mediating variable were held constant).

Model 2: Testing for mediation

This study adapted (MacKinnon et al., 2012) procedure in testing for mediation. This entails.

i. A significant relationship between X (Independent Variable) and M (Mediator) The following equation was applied; $M = a_0 + C + a_1 X + \varepsilon$ (Must be significant)

ii. A significant relationship between M (Mediator) and Y (Dependent variable) with the following equation applied; $Y = b_0 + C + b_1 M + \varepsilon$ (Must be significant)

iii. Testing the relationship between X (Independent Variable) and Y (Dependent variable) while holding constant M (Mediator). The following equation was applied; $Y = C_0' + C + b_1 M + C_1' X + \varepsilon$ (it is not mandatory for it to be significant for mediation to take place. If the test is significant, there is a partial mediation and if not, then there is a full mediation so long as condition i and ii above have been met.

iv. Testing for mediation = a_1 x b_1 or **C** (total effect) – C' (direct effect)

v. Total effect (**C**) = The product of $a_1 b_1$ + C' (direct effect)

The following statistical diagram was applied for mediation.

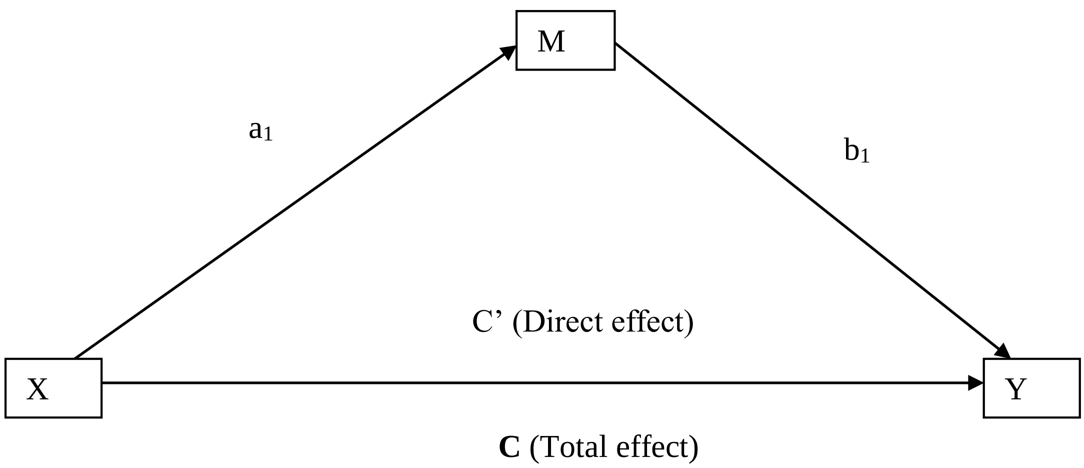


Figure 3.1 Hayes (2018) Model 4 Mediation diagram

Model 3: This was used for testing the moderation hypotheses

i. $M = a_0 + C + a_1 X + + a_2W + a_2 XW + \mathcal{E}$ (This model was used to test for the moderating effect of perceived corporate image on the relationship between mobile service quality and customer perceived value while holding constant the controls, independent and moderator variables - H_{05})

ii. To test H_{06}, the moderating effect of perceived corporate image on the relationship between mobile service quality and customer retention while controlling for control variables, independent and moderator variables, the following equation was used; $Y = C_0' + C + C_1' X + C_2'W + C_3'XW + \mathcal{E}$

iii. $Y = b_0 + C + b_1 M + b_2W + b_3 XW + \mathcal{E}$; This equation was used to test hypothesis H_{07} while controlling for control, covariates, independent and moderator variables as shown by 'b_1' of the conceptual framework indicated as Figure 2.1.

Model 4: Testing for moderated mediation (H_{08})

The following equation was used Y= One indirect effect(s) of X on Y, conditional on W:

$$a_1b_1 + a_3b_1W + a_1b_2W + a_3b_2W = (a_1 + a_3W)\ (b_1 + b_2W) = (a_1+a_3W)\ (b_1+b_2W)$$

The following statistical diagram was applied for moderated mediation;

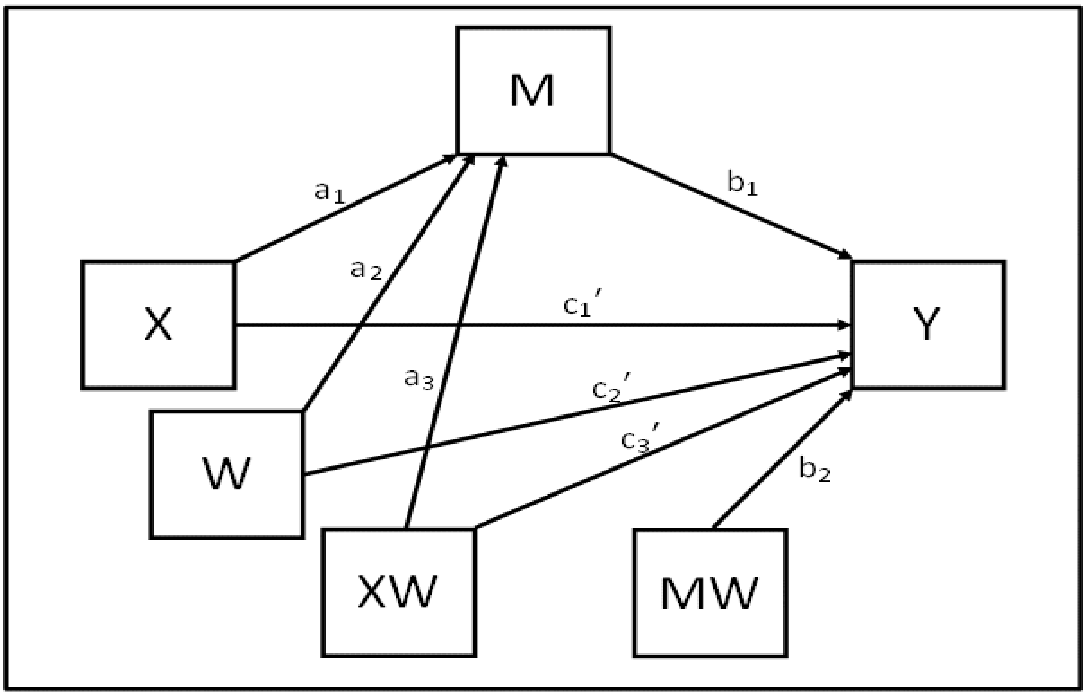


Figure 3.2: Hayes (2018) Moderated Mediation diagram

Where:

X; Independent variable (Mobile Banking Service Quality)

M; Mediating variable (Customer Perceived Value)

W; Moderating variable (Perceived Corporate Image)

Y; Dependent variable (Customer Retention)

a_1, a_2, a_3, b_1, b_2, C_1', C_2', and C_3' coefficients of determination

3.17 Ethical Considerations

Appropriate ethical conduct was enhanced in this study. Permission to carry out the study was sought from the relevant authorities which include consent from the management of the universities and a research permit from the National Council for Science, Technology & Innovation (NACOSTI). In addition, informed consent was also obtained from individual respondents. Those respondents who declining participation were not coerced. The respondents were assured of confidentiality regarding any information gathered, filled and shared or disclosed to any other party other than for study purposes. Moreover, the anonymity of the respondents was assured where there was no name writing on the questionnaires. Furthermore, Courtesy and appreciation was incorporated and no leading or private questions were asked.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, AND INTERPRETATION

4.0 Introduction

This chapter provides details of the results of data analysis and discussions of the research findings guided by relevant literature. Characteristics of study variables including the demographic characteristics of the respondents are captured using descriptive statistics such as graphs and tables. Additionally, the chapter reports on the results of tests of assumptions, factor analysis using principle component analysis and correlations using Pearson's correlations. Moreover, the results of hypothesis testing for all the models are also covered in this chapter.

4.1 Data Processing, Preparation, and Screening

Data was checked, recorded, and cleaned. Completed questionnaires were further checked for missing values and inconsistencies in responses given by the respondents. Simple frequency runs were made to screen the data to identify missing values. The identified missing values were a result of omissions made by respondents and constituted less than 1% of the data; and, thus, considered too trivial and inconsequential to suppress the standard deviation Little and Rubin, (2014). The fact that missing values were as a result of omissions which were unrelated to other values or variables, the criteria of data missing completely at random were met Acuna and Rodriguez, (2004). Though there are a quite number of techniques used to address missing data challenges, such as median imputation, series mean value replacement, pair-wise deletion, list-wise deletion, similar response pattern imputation and maximum likelihood estimation, the researcher found mean imputation replacement method suitable for this study (A. Field, 2013; Little & Rubin, 2014).

4.2 Response Rate

The study had sampled a total of three hundred five seven (400) respondents during the twenty (21) days of data collection. However, out of the 400 questionnaires issued, only 332 were filled and returned but only 325 questionnaires were used since they were correctly filled while seven (7) questionnaires that were partially filled were excluded in the analysis consistent with the approach by adopted by Chuan *et al*., (2012). The overall survey response rate as illustrated in table 4.1 was 81% while the non-response rate was 19 %. The high response rate was realized since the respondents had given their consent to take part in the study before being issued with the questionnaire.

Table 4. 1: Response Rate

Item	Frequency	Percentage
Number of Questionnaire	400	100
Responses	325	81
Non- Responses	75	19

Source: Survey Data (2020)

4.3 Demographic Profile of the Respondents

The background information of the respondents provides the researcher with the characteristics of the unit under investigation. It identifies and describes the history and nature of the unit of analysis. However, this is not usually the focus of a study, but such information is important as it may contribute to understanding the direction of the relationship between the main factors under investigation. Thus, this study sought to establish the characteristics of mobile banking service customers including; gender, age, customer service experience, customer’s level of education and customer’s income. The frequencies and corresponding percentages of data were determined, and the results are presented in Tables 4.2.

4.3.1 Respondent's Gender and Age

The findings on customer characteristics in Table 4.2 on customer gender, the study reveals that male respondents were more than the female, (54%) and (46%) respectfully. The study also revealed that majority of customers were young. The age group of between 26-35 years were the majority with 143 respondents accounting for 43.9% of the respondents; this was followed by those between 46-55 years, with 79 respondents accounting for 24.2% of the total respondents. Those of between 18-25 years were 55 which was 16.9% of the total respondents. Those above 66 years were the minority with 12 respondents and represented 3.7% as shown in table 4.1. This indicates that mobile banking service technology is majorly accepted and used by the younger generation as opposed to the elder generation. The statistics are supported by a stream of banking technology research indicating that a younger generation has potential to become users of mobile banking because of its familiarity with the latest mobile technologies Amin *et al*., (2012). Moreover, older consumers see more value in traditional banking, all ages are equally interested in currently emerging technologies (such as mobile banking technology, online banking technology), and younger users are more interested in the newest technologies Harris *et al*., (2016).

4.3.2 Respondent's service experience

In regards to the customer service experience, the study revealed that a majority of the customers with between 5-10 years of mobile banking service experience totaled to 39.0% of the total respondents, those with between 1-5 years of service experience summed to 32.2% of the all respondents. Customers with more than 10 years of service experience accounted for 23.0% of the respondents, while those with below 1 year of service experience totaled to 5.8% of all respondents. This is an indication that those that tried out on the service did not switch to other services. These findings are supported by prior research that investigated the relative importance customer experiences. Harris *et al*., (2016), explained that cohort's unique experiences may shape their attitudes regarding the precursors of adoption. They argue that a cohort that is 65 years old today has different adoption attitudes than those who will be 65 in another decade.

4.3.3 Respondent's level of the education

Regarding the customer's level of the education, the majority of the customers (46.3%) had acquired an undergraduate degree, Master's Degree 23.9%, Diploma holders 21.5%, secondary school education, 4.6%, while 3.7% of the customers were Ph.D. holders. This indicates high literacy levels among the customers. Education has consistently been viewed as a type of credential that contributes to the customer's decision on how and when they will adopt the technology.

4.3.4 Respondent's Income

In addition, the findings also revealed that most of the customers with monthly income ranging from (Khs. 10,000 - Khs.50,999) accounting for 36.8% of the total respondents, followed closely by customers whose monthly income range between (Khs. 51,000 - Khs.99,999) accounting for 35.6% of the total respondents, customers whose monthly income were above Khs. 100,000 accounted for 22.1% of the total respondents, and those whose monthly income was less Than Khs. 9,999 accounted for 5.5% of the total respondents.

Table 4.2: Customer Characteristics

Variable		Frequency	Percent
Customer Gender	Male	176	54.0
	Female	150	46.0
	Total	**326**	**100.0**
Customer Age	18-25 years	55	16.9
	26-35 years	143	43.9
	46-55 years	79	24.2
	56- 65 years	37	11.3
	Above 66 years	12	3.7
	Total	**326**	**100.0**
Customer's Education Levels	Secondary Certificate	15	4.6
	Diploma Holder	70	21.5
	Undergraduate Degree	151	46.3
	Master's Degree	78	23.9
	Ph.D. Holder	12	3.7
	Total	**326**	**100.0**
Customer Service Experience	Below 1 year	19	5.8
	1-5 years	105	32.2
	5-10 years	127	39.0
	Above 10 years	75	23.0
	Total	**326**	**100.0**
Customer Income	Less Than Khs. 9,999	18	5.5
	Khs. 10,000 - Khs.50,999	120	36.8
	Khs. 51,000 - Khs.99,999	116	35.6
	Above Khs. 100,000	72	22.1
	Total	**326**	**100.0**

Source: Survey Study (2020)

4.4 Analysis of Outliers

Screening of outliers was deemed crucial and necessary before conducting further analysis in this study. This is because presence of extreme outliers may lead to non-normality of the data and distorted statistics (Tabachnick & Fidell, 2013). According to (Aguinis et al., 2017), outliers are observations in the data that deviate markedly from the rest, which often cause important changes in substantive conclusion.

In this study, one (1) case of influential outlier through Mahalanobis distance greater than the critical $\chi 2$ value of 20.52, where $p < .001$ and *df* was 1, 3

(Aguinis et al., 2013; Daigle, 2019). The *df* = degree of freedom represented number of variables against the dependent variable. This study therefore carried out an analysis from data without influential outliers with n = 325. The findings of this study are all discussed, and inferences made based on the data set without outliers using n = 325, since the one case of identified outlier was deleted from the data set as per the recommendation of Aguinis *et al.,* (2013).

4.5 Descriptive Statistics

This section gives a comprehensive coverage of the descriptive statistics of the four main study variables: Customer Retention, Mobile Banking Service Quality, Customer Perceived Value and Perceived Corporate Image. Emphasis is on the mean and standard deviations of all the study items. These results are shown from table 4.3. to 4.6.

4.5.1 Mean and standard deviations of Customer Retention

This section shows and explains the descriptive statistics for all the four items that were used to measure customer retention. All the items adopted a 5-point Likert-type scale indicating the extent of agreement or disagreement with a given statement, namely, 1—Strongly Disagree, 2 —Disagree, 3 —Not Sure, 4 —Agree, and, 5 — Strongly Agree. The items used in measuring customer retention were adapted from Morgan and Hunt, (1994) as was also adopted by Ranaweera and Prabhu, (2003b). The particular statements and their corresponding descriptive are: CRN1— I intent to use my bank's mobile banking services for the foreseeable future, (n=325, M=4.15, SD=0.739), CRN2— I would recommend my bank's banking services to my relatives and friends. (n=325, M= 4.17, SD=0.756), CRN3— given choices of other mobile banking services of other banks, I will remain as a customer to my bank (n=325, M= 4.05, SD=0.846), CRN4— I intent to increase the usage of the various mobile banking services offered by my bank (n=325, M= 3.99, SD=0.801). As shown on the table the customers who participated in the study generally agree that customer retention influenced by the respective indicators since the mean was around 4.00.

Table 4.3: Descriptive Statistics for Customer Retention

			Descriptive Statistics		
	N	Minimum	Maximum	Mean	Std. Deviation
CRN1	325	1	5	4.15	.739
CRN2	325	1	5	4.17	.756
CRN3	325	2	5	4.05	.846
CRN4	325	1	5	3.99	.801

Source: Survey Study (2020)

4.5.2 Mean and standard deviations of Mobile Banking Service Quality

This section shows and explains the descriptive statistics for the three dimensions of mobile banking service quality which has a total of seventeen measuring items all adapted from a scale proposed by Parasuraman *et al*., (2005). All the seventeen items adopted a 5-point Likert-type scale indicating the extent of agreement or disagreement with a given statement, namely, 1—Strongly Disagree, 2 —Disagree, 3 —Not Sure, 4 —Agree, and, 5 — Strongly Agree. The results for the means and standard deviations are as discussed in the next sections

This section covers the seventeen (17) statements and their corresponding descriptive for mobile banking service quality (MSQ); MSQ1— My bank's Mobile banking services are prompt hence, it takes shorter waiting time (n=325, M= 4.39, SD= .710), MSQ2— My bank's mobile banking Services saves my time (n=325, M= 4.56, SD=

.671), MSQ3—My bank's mobile banking Services allows me to complete transactions quickly (n=325, M= 4.49, SD= .705), MSQ4 — My bank's mobile banking service reduces the cost of my activities with the bank (n=325, M= 3.99, SD= 1.029), MSQ5 — Information in the mobile banking application is well organize (n=325, M= 4.07, SD= .823), MSQ6 — My bank's Mobile banking system is always available for use (n=325, M= 3.72, SD= 1.073), MSQ7 — My bank's Mobile banking system operates smoothly and without delays (n=325, M= 3.55, SD= 1.092), MSQ8 — My bank's Mobile banking system does not crash (n=325, M= 3.05, SD= 1.159), MSQ9 — My bank notifies me whenever a bank transaction are performed (n=325, M= 4.18, SD= .986), MSQ10 — My bank promptly informs about important situations (e.g. payments, balance) (n=325, M= 3.92, SD= 1.101), MSQ11 — My bank's mobile banking Services exceeds my expectations (n=325, M= 3.33, SD= 1.074), MSQ12 — Mobile banking related problems are quickly resolved by the bank (n=325, M= 3.50, SD= 1.070), MSQ13 — I obtain accurate and error free service from my bank's mobile banking services (n=325, M= 3.56, SD= 1.114), MSQ14 — I feel safe using my bank's mobile banking services (n=325, M= 3.78, SD= 1.117), MSQ15 — Risk associated with my bank's mobile banking services is low (n=325, M= 3.46, SD= 1.101), MSQ16 — Personal information exchanged over mobile banking services is not misused by my bank (n=325, M= 3.80, SD= .890), and MSQ17 — I feel secure in providing sensitive information during mobile banking transactions. (n=325, M= 3.44, SD= 1.181). These results are summarized in table 4.4

Table 4.4: Descriptive Statistics for Mobile Banking Service Quality

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
MSQ1	325	1	5	4.39	.710
MSQ2	325	1	5	4.56	.671
MSQ3	325	1	5	4.49	.705
MSQ4	325	1	5	3.99	1.029
MSQ5	325	1	5	4.07	.823
MSQ6	325	1	5	3.72	1.073
MSQ7	325	1	5	3.55	1.092
MSQ8	325	1	5	3.05	1.159
MSQ9	325	1	5	4.18	.986
MSQ10	325	1	5	3.92	1.101
MSQ11	325	1	5	3.33	1.074
MSQ12	325	1	5	3.50	1.070
MSQ13	325	1	5	3.56	1.114
MSQ14	325	1	5	3.78	1.117
MSQ15	325	1	5	3.46	1.101
MSQ16	325	1	5	3.80	.890
MSQ17	325	1	5	3.44	1.181

Source: Survey Study (2020)

As demonstrated on the table 4.4, the means for most of the items used to measure mobile banking service quality had means above 3.5 confirming that majority of the respondents were in agreement about the importance of this variable in influencing consumer decision making.

4.5.3 Mean and standard deviations of Customer Perceived Value

Descriptive statistics were calculated for all the five items measuring customer perceived value (PCV). These items were adapted from Ravald and Grönroos, (1996) and all the items adopted a 5-point Likert-type scale indicating the extent of agreement or disagreement with a given statement, namely, 1-Strongly Disagree, 2 -Disagree, 3-Not Sure, 4-Agree, 5-Strongly Agree.

Results illustrated in Table 4.5 shows that; PCV1— Continuous innovations to mobile banking service makes me feel good (n=326, M= 4.39, SD=0.641), PCV2 — I get good value from the mobile banking services for a reasonable price. (n=326, M= 3.75, SD=1.065), PCV3— I don't mind sacrificing time and efforts to access and use mobile banking services (n=326, M= 3.98, SD=0.920), PCV4— Compared with other bank's services such ATM, it is wise to choose this mobile banking services. (n=326, M= 3.78, SD=1.114), PCV5 — I believe that mobile banking services are designed with customer's best interests at heart. (n=326, M= 3.92, SD=1.0189).

Table 4.5: Descriptive Statistics for Customer Perceived Value

	N	Minimum	Maximum	Mean	Std. Deviation
PCV1	326	2	5	4.39	.641
PCV2	326	1	5	3.75	1.065
PCV3	326	1	5	3.98	.920
PCV4	326	1	5	3.78	1.114
PCV5	326	1	5	3.92	1.018

Source: Survey Study (2020)

The results illustrated in Table 4.5 reveal that the means for all the items used to measure customer perceived value ranged between 3.75 and 4.39 out of 5 signifying strong agreement that the five factors have significant influences on consumer decision making processes. This findings are consistent with the findings of Carlos Fandos Roig *et al.*, (2006).

4.5.4 Mean and standard deviations of Perceived Corporate Image

Descriptive statistics were calculated for the eight items measuring Perceived Corporate Image (PCI). The items were adapted from and the results are as follows;

PCI 1 — my bank is innovative and pioneering (n=325, M= 4.03, SD=.825), PCI 2 — my bank has a good reputation (n=325, M= 4.12, SD=.562), PCI 3 — my bank has a better image than its competitors (n=325, M= 3.92, SD=.873), PCI 4 — my bank does its business in an ethical way (n=325, M= 4.04, SD=.806), PCI 5 — my bank is open and responsive to consumers (n=325, M= 4.19, SD=.715), PCI 6 — my bank contributes to the society (n=325, M= 3.99, SD=.848), PCI 7 — in my opinion, my bank has a good image in the minds of its customers (n=325, M= 4.06, SD=.724), PCI 8 — Overall, I have a good impression of my Bank (n=325, M= 4.24, SD=.715). The results are as summarized in Table 4.6.

Table 4.6: Descriptive Statistics for Perceived Corporate Image

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
PCI1	325	1	5	4.03	.825
PCI2	325	2	5	4.12	.562
PCI3	325	1	5	3.92	.873
PCI4	325	1	5	4.04	.806
PCI5	325	2	5	4.19	.715
PCI6	325	1	5	3.99	.848
PCI7	325	1	5	4.06	.724
PCI8	325	2	5	4.24	.715

Source: Survey Study (2020)

From these results, the means for all the eight items that were used to measure perceived corporate image ranged between 3.92 and 4.24 out of 5 a confirmation that majority of the respondents were in agreement that this this variable in influencing consumer decision making.

4.6 Reliability Test

Reliability tests were carried out to establish whether the instrument used had reliable assessment in the scales. According to the recommendations of Christmann and Van Aelst, (2006), a cut-off alpha coefficient point of 0.7 is sufficient enough to prove that the item scales are consistent and dependable. Consistent with the above scholars' standards, all the constructs employed were found to be highly reliable with Cronbach value above 0.7. Mobile banking service quality which had seventeen (17) items showed a Cronbach value of 0.839. The mediator, Customer Perceived Value showed a Cronbach value of 0.701 for Five (5) items while the moderator, perceived corporate image which had eight (8) items showed a Cronbach value of 0.847. Finally, the dependent variable, Customer retention which had 4 items showed a Cronbach alpha value of 0.762. Hence, it was enough to conclude that the instrument was reliable as shown in table 4.7

Table 4.7: Summary of Cronbach's Alpha Reliability Coefficient

Variables	Cronbach's Alpha values	No of Items
Mobile Banking Service Quality	0.714	17
Customer Perceived Value	0.701	5
Perceived Corporate Image	0.847	8
Customer Retention	0.762	4

Source: Survey Study (2020)

4.7 Factor Analysis

Before testing the Hypotheses, all the four constructs of the study; mobile banking service quality, customer perceived value, perceived corporate image and corporate were factor analyzed using principal component analysis with Varimax rotation. This analysis was deemed appropriate because of its ability to establish linear components in the data set, besides being psychometrically-sound and conceptually less complex Field, (2012). Varimax rotation method was also deemed appropriate for this study because of its ability to maximize the dispersion of loadings within factors; as a result, it loads smaller number of variables onto each factor Field, (2012).

Based on the standard of Kaiser, (1960), the researcher kept all factors with Eigen values greater than 1. Eigen values represent the amount of variation explained by a factor and that an Eigen value of 1 represents a substantial amount of variation. In consideration of the variables to retain, the study followed the criterion of Bryman and Cramer, (2011), any factor loading below 0.4 is weak, between 0.5 and 0.6 is moderate while above 0.7 is significant. Therefore, all the factor loadings less than 0.5 were suppressed in yielding the output.

4.7.1 Factor Analysis for Mobile Banking Service Quality

The study factorized mobile banking service quality to determine whether the seventeen items of the study were measuring the construct. The results of the study are shown in table 4.8. The results as shown in table shows that the analysis yielded three components. The first factor derived from the analysis was labeled mobile banking service quality- Fulfilment with eight items. Out of the eight items, five items loaded while three items were removed as they failed to load. This factor had an Eigen value of 4.913 and accounted for 28.9 % of the total variance (Table 4.9). The five items that loaded include; - My bank's Mobile banking system is always available for use, - My bank's Mobile banking system operates smoothly and without delays, -My bank's Mobile banking system does not crash, - Mobile banking related problems are quickly resolved by the bank, - I obtain accurate and error free service from my bank's mobile banking services. The three items that were removed for failing to meet the criteria are; - My bank notifies me whenever a bank transaction is performed, -My bank promptly informs about important situations (e.g. payments, balance), - My bank's mobile banking Services exceeds my expectations.

Factor two was labelled mobile banking service quality- privacy with four items. This factor shows an Eigen value of 2.096 accounting for 12.3% of the variance as shown in

Table 4.9. All the four items loaded onto the component of mobile banking service quality- privacy as indicated in Table 4.8. They include; - I feel safe using my bank's mobile banking services, - Risk associated with my bank's mobile banking services is low, - Personal information exchanged over mobile banking services is not misused by my bank, - I feel secure in providing sensitive information during mobile banking transactions.

Finally, the third factor was labelled mobile banking service quality-efficiency with an Eigen value of 1.317 which explains a 7.7% of the total variance. This factor had five items, however, only three items loaded while two of the items were removed as they did not meet the criteria. The three items that loaded include; - My bank's Mobile banking services are prompt hence, it takes shorter waiting time, - My bank's Mobile banking services are prompt hence, it takes shorter waiting time, - My bank's mobile banking Services saves my time. The two items that were removed as they did not load include - My bank's mobile banking Services allows me to complete transactions quickly and - My bank's mobile banking service reduces the cost of my activities with the bank.

The results as shown in table 4.9 reveal that cumulatively, the three factors extracted accounted for a total of over 48.9% of the total variance in mobile banking service quality. The variance for mobile banking service quality- Fulfilment accounted for by this factor was 28.90%., privacy explained 12.32% of the variance while the dimension of efficiency explained 7.75% of the total variance.

Furthermore, Hair *et al*., (2009) recommends KMO as the most appropriate test of a correlation matrix for purposes of conducting a factor analysis. Moreover, Tabachnick and Fidell, (2013), recommend a KMO threshold of 0.6 and higher. The sample as seen in table 4.9, met the required thresholds for sampling adequacy (KMO 0.819). The Bartlett's test of sphericity provides that a Chi-Square output that must be significant to confirm that the matrix is not an identity matrix Taherdoost *et al.*, (2014), hence confirming that a linear combination exists. The results of the study as is detailed in table 4.8 reveals that the requirements for Bartlett's test of sphericity were met with a Chi-Square of 1722.185 at df =136 which was significant at .000.

Table 4.8: Factor Analysis Results: Mobile Banking Service Quality

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.				.819
Bartlett's Test of Sphericity	Approx. Chi-Square			1722.185
	Df			136
	Sig.			.000
		1	2	3
MSQ1 My bank's Mobile banking services are prompt hence, it takes shorter waiting time				.765
MSQ2 My bank's Mobile banking services are prompt hence, it takes shorter waiting time				.873
MSQ3 My bank's mobile banking Services saves my time				.797
MSQ4 My bank's mobile banking Services allows me to complete transactions quickly- **Removed**				
MSQ5 My bank's mobile banking service reduces the cost of my activities with the bank-**Removed**				
MSQ6 My bank's Mobile banking system is always available for use		.722		
MSQ7 My bank's Mobile banking system operates smoothly and without delays		.769		
MSQ8 My bank's Mobile banking system does not crash		.706		
MSQ9 My bank notifies me whenever a bank transaction is performed-**Removed**				
MSQ10 My bank promptly informs about important situations (e.g. payments, balance) -**Removed**				
MSQ11 My bank's mobile banking Services exceeds my expectations-**Removed**				
MSQ12 Mobile banking related problems are quickly resolved by the bank		.594		
MSQ13 I obtain accurate and error free service from my bank's mobile banking services		.677		
MSQ14 I feel safe using my bank's mobile banking services			.731	
MSQ15 Risk associated with my bank's mobile banking services is low			.755	
MSQ16 Personal information exchanged over mobile banking services is not misused by my bank			.626	
MSQ17 I feel secure in providing sensitive information during mobile banking transactions.			.730	

Source: Survey Study (2020)

Table 4.9: Total Variance Explained by Mobile Banking Service Quality

Items of Mobile Banking Service Quality	Eigen Values	% Variance	Cumulative %
1- Fulfilment	4.913	28.903	28.903
2- Privacy	2.096	12.328	41.231
3- Efficiency	1.317	7.748	48.978

Source: Survey Study (2020)

4.7.2 Factor Analysis for Customer Perceived value, Perceived Corporate Image and Customer Retention

The study further conducted factor analysis on customer perceived value, perceived corporate image and customer retention to determine whether the items used measure the three constructs as intended. Seventeen items were factor analyzed with the construct configuration obtained through principal component analysis (PCA) using Varimax rotation. The results of the study are shown in table 4.10.

The factor analysis results as shown in table 4.10 shows how the items loaded on three components. Component one, was named perceived corporate image with all its eight items loading on it. This factor had an Eigen value of 5.935 with 34.9% of variance accounted for by this factor (Table 4.11). The eight items were; My bank is innovative and pioneering, My bank has a good reputation, My bank has a better image than its competitors, My bank does its business in an ethical way, My bank is open and responsive to consumers, My bank contributes to the society, In my opinion, my bank has a good image in the minds of its customers, and Overall, I have a good impression of my Bank.

The second factor derived from the analysis was named customer retention with three out of the four items of customer retention loaded on it. This variable had an Eigen value of 1.886 with a total of 11% of variance accounted for by this variable. The three items that loaded were; I intent to use my bank's mobile banking services for the foreseeable future, I would recommend my bank's banking services to my relatives and friends, I intent to increase the usage of the various mobile banking services offered by my bank. The fourth item, "Given choices of other mobile banking services of other banks, I will remain as a customer to my bank" failed to load hence was removed from the analysis.

Finally, the third component was named customer perceived value after all its five items loaded on it. This component had an Eigen value of 1.254 with over 7.3% of the variance being explained by the variable. The five items include; Continuous innovations to mobile banking service makes me feel good, I get good value from the mobile banking services for a reasonable price, I don't mind sacrificing time and efforts to access and use mobile banking services, Compared with other bank services such ATM, it is wise to choose this mobile banking services and, I believe that mobile banking services are designed with customer's best interests at heart. Adopting the approach of Hair Jr *et al*., (2010), all the items were subject to a factor loading threshold of 0.5 and above with any item having factor loadings less than 0.5 dropped. Notably, the factor loadings for all the items range from 0.556 to 0.902 hence meeting the minimum requirement of 0.5.

In summary, Table 4.11 shows that the percentage of variance accounted for by perceived corporate image is 34.90%., customer retention is 11.10% and customer perceived value 7.37%. Cumulatively, the three components extracted accounted for 53.38% of the total variance. The sample met the required thresholds for sampling adequacy as shown by KMO 0.788, Bartlett's test of sphericity p-value = 0.000, df =136, $\chi 2$= 2481.837.

Table 4.10: Factor Analysis Results for Customer Perceived value, Perceived Corporate Image and Customer Retention

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.				.788
Bartlett's Test of Sphericity	Approx. Chi-Square			2481.837
	Df			136
	Sig.			.000
		1	2	3
PCV 1	Continuous innovations to mobile banking service makes me feel good			.624
PCV 2	I get good value from the mobile banking services for a reasonable price.			.704
PCV 3	I do not mind sacrificing time and efforts to access and use mobile banking services			.623
PCV 4	Compared with other bank services such ATM, it is wise to choose this mobile banking services			.591
PCV 5	I believe that mobile banking services are designed with customer's best interests at heart.			.598
PCI 1	My bank is innovative and pioneering.	.556		
PCI 2	My bank has a good reputation	.902		
PCI 3	My bank has a better image than its competitors	.575		
PCI 4	My bank does its business in an ethical way.	.703		
PCI 5	My bank is open and responsive to consumers	.655		
PCI 6	My bank contributes to the society	.592		
PCI 7	In my opinion, my bank has a good image in the minds of its customers	.727		
PCI 8	Overall, I have a good impression of my Bank	.693		
CRN 1	I intent to use my bank's mobile banking services for the foreseeable future		.823	
CRN 2	I would recommend my bank's banking services to my relatives and friends.		.780	
CRN 3	Given choices of other mobile banking services of other banks, I will remain as a customer to my bank –**Removed**			
CRN 4	I intent to increase the usage of the various mobile banking services offered by my bank		.665	

Source: Survey Study (2020)

Table 4.11: Total Variance Explained by Customer Perceived Value, Perceived Corporate Image, Customer Retention

Items of the three variables	Eigen Values	% Variance	Cumulative %
1. Perceived Corporate Image	5.935	34.909	34.909
2. Customer Retention	1.886	11.097	46.006
3. Customer Perceived Value	1.254	7.378	53.384

Source: Survey Study (2020)

4.8 Data Transformation

The constructs in the research tool were measured using a combined total of thirty-four items. An average score for the multiple items of each construct were therefore computed to arrive at a composite value and this is what was used to compute the study variables further for further analysis which included correlation and regression analysis. This is consistent with the approach by Wang and Benbasat, (2007). As table 4.12 indicate, Customer retention had the highest mean (M= 4, SD=.610) while Mobile service quality had the least mean of M=3.85, SD=.591.

Table 4.12: Summary of Descriptive statistics

Variables (n= 325)	Mean	Standard Deviation	Skewness	Kurtosis
Customer Retention	4.0157	.61014	-.620	.769
Mobile Service Quality	3.8597	.59175	-.329	-.303
Customer Perceived Value	3.9742	.64220	-.577	.089
Corporate Perceived Image	3.8635	.78044	-1.021	.771

Source: Survey Study (2020)

4.9 Correlation Analysis

The study sought to establish the interrelationships between the study variables. To achieve this objective, correlation analysis was done using Pearson's product moment correlations. Correlation analysis is carried to establish the strength and direction to which two variables move together. A positive correlation coefficient shows that the two variables move together in the same direction, while a negative relationship indicates that the variables move in opposite direction. Essentially, correlation analysis shows how one factor influences another to a given degree. However, correlations do not imply or infer a cause-effect relationship.

Lind *et al*., (2012), stated that correlation co-efficient value of 0.10 to 0.299 is considered weak, while co-efficient value of 0.30 to 0.49 is considered medium and 0.50 to 1.0 is considered strong. Field (2005) however argues that correlation coefficient should not go beyond 0.8 to avoid Multicollinearity. A bivariate correlation analyses were performed, and Pearson correlation coefficients were generated to measure the magnitude of the relationship between the study variables (Field, 2017). Table 4.13 detailed the inter-correlations between the study variables where, Customer Retention and Mobile Banking Service quality was the strongest with r =.569, p <.01. This was followed by Customer Perceived value r = .559, p <.01 and the least was with Perceived Corporate Image r =.311, p <.01. Since the highest correlation coefficient is 0.561 which is less than 0.8, there is no Multicollinearity problem in this study.

Table 4. 13: Correlation Analysis

Name of Variable	1	2	3	4
1. Customer Retention	1			
2. Mobile Service Quality	.569**	1		
3. Customer Perceived Value	.559**	.536**	1	
4. Corporate Perceived Image	.311**	.261**	.246**	1

Source: Research Data (2020), ** Correlation is significant at the 0.01 level (2-tailed)

The findings revealed existence of a linear association between the independent variable constructs and the dependent variable. Mobile banking service quality has a positive and significant correlation with Customer retention (r =.569; p <.01), implying that there is 56.9% chance that customer retention will increase with increase in Mobile banking service quality. The results also reveal that customer perceived value has a positive and significant correlation with customer retention (r =.559; p <.01) which implies that there is 55.9% chance that customer retention will increase with an increase in customer perceived value. Finally, perceived Corporate Image has a positive and significant correlation with customer retention (r =.311; p <.01). Thus, there is 31.1%

chance that customer retention will increase with increase in perceived corporate image. The highest correlation was between Mobile banking service quality and customer retention at 0.561 and the lowest was between perceived corporate image and customer retention at 0.311. This confirms that all the hypothesized relationships were significant at $p < 0.01$.

Further, positive, and significant relationship was established between mobile banking service quality, customer perceived value and corporate image. The results indicate that customer perceived value has a positive and significant correlation with Mobile banking service quality (r =.536; p <.01), implying that there is 53.6% chance that increase in customer perceived value will increase with increase Mobile banking service quality. Corporate image too has a positive and significant correlation with Mobile banking service quality (r =.261; p <.01). This indicates that there is 26.1% chance that mobile banking service quality will increase given an increase in customer perceived value. Finally, a positive and significant relationship was established between customer perceived value and corporate image (r =.246; p <.01), this indicates that there is 24.6% chance that customer perceived value will increase given an increase in perceived corporate image. This too confirms that all the hypothesized relationships were also significant at $p < 0.01$.

4.10 Testing for Assumptions of Regression

Carefully bearing in mind the reasonableness of the assumptions of multiple regression in the context of a particular dataset and analysis is an important prerequisite to the drawing of trustworthy conclusions from data, Williams *et al.*, (2013). The study tested for the regression assumptions on the three variables; Customer retention, Mobile Banking Service Quality, Customer perceived value and corporate image so as to ensure the results of the analysis are trustworthy and not misleading. Violations of the assumptions of linear regression may lead to one committing a type I or type II error. Type one error is where you reject a null hypothesis when it should be accepted, and type ii error occurs when one accepts a wrong null hypothesis when it should be rejected. The assumptions that the study tested include: all variables are normally distributed: linearity of each of the independent variables with the dependent variable; no outliers: equal variance of the dependent variable across a range of independent variables (homoscedasticity), and no multi-colinearity.

4.10.1 Normality Test

Regression assumes that variables have normal distributions. Non-normally distributed variables (highly skewed or kurtotic variables, or variables with substantial outliers) can distort relationships and significance tests Osborne and Waters, (2002). The removal of univariate and bivariate outliers can reduce the likelihood of occurrence of type I and type II errors in addition to significantly improving the accuracy of the model estimates. The study tested for normality by using Kurtosis, skewness tests, plots, and Shapiro-Wilk test.

The results demonstrated earlier in table 4.12, it indicates the skewness and kurtosis of the four variables. The study findings indicate customer retention having skewness; -0.620, kurtosis; 0.769, mobile banking service quality with skewness; -.329, kurtosis; -.303, customer perceived value, skewness; - 0.577, kurtosis; 0.089, and perceived corporate image (skewness; -1.021, kurtosis; .777), which are within the acceptable range of -2 and +2, Garson, (2012).

In addition, the study used the Shapiro-Wilk test since it is one of the most common statistical measures of normality. It tests the null hypothesis that the data is drawn from a normally distributed population. This test is sensitive to sample sizes such that large sample sizes even with minimal deviations may lead to reporting of results being significant. Consequently, Shapiro-wilk test should be used in conjunction with graphical or visual methods, this was the case in this study. A decision to accept the null hypothesis is made if the p-value is greater than 0.05 or if the Shapiro-wilk statistic is close to 1 Rose *et al*., (2014). Furthermore this also agrees with Gel *et al*., (2005) assertion that Shapiro-wilk (SW) test of normality may be interpreted as the Pearson correlation between the standardized ordered sample and the expected values of the standard normal distribution. When the data come from a normal distribution, the SW statistic should be close to 1.

Results illustrated in Table 4.14 shows that; SW statics for customer retention (0.924), mobile banking service quality (0.985), while for customer perceived value (0.963) and for perceived corporate image (0.902). These results for the statistics of all the four variables are close to 1 hence the requirements for the assumption of normality have been complied with.

Table 4.14: Shapiro-wilk Normality Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Name of Variable	Statistic	df	Sig.	Statistic	df	Sig.
Customer Retention	.225	325	.000	.924	325	.000
Mobile Service Quality	.061	325	.005	.985	325	.001
Customer Perceived Value	.107	325	.000	.963	325	.000
Corporate Image	.146	325	.000	.902	325	.000

Source: Survey Study (2020)

4.10.2 Test of Linearity

Before performing a regression analysis, it is important to assess if the predictor variables have a linear relationship to the outcome variable. Hair *et al*., (2010) suggest that linearity is the premise that all multivariate approaches dependent on correlation measures of association. It is therefore important to evaluate the relationship between the variables to detect any departure that could influence the correlation. Linearity was checked using correlation results indicated in Table 4.13 which shows that all the variables of the study are lineally related with the dependent variable.

4.10.3 Assumption of Multicollinearity

The study equally tested for the assumption of Multicollinearity using variance inflation factor (VIF) and tolerance. The acceptable tolerance range should be more than 0.2 while the values for variance inflation factor (VIF) should be less than 10 as a confirmation that Multicollinearity issues do not exist in the data. The results shown on table 4.15 indicate that all variables indicates tolerance value above .6 and VIF below 10. Hence Multicollinearity assumption has been met in this study Allen and Bennett, (2012).

Table 4. 15: Multicollinearity Diagnostics

Name of variable	Collinearity Statistics	
	Tolerance	VIF
Mobile Service Quality	.695	1.439
Customer Perceived Value	.701	1.427
Corporate Perceived Image	.916	1.092

Source: Survey Study (2020)

4.10.4 Assumption of Homoscedasticity

The study tested for the assumption of homoscedasticity using both the graphical and non-graphical methods. Standardized scatter plot was used as it is among the most common approach Lin and Wei, (2003). The ordinary least squares residuals were plotted against fitted values or an explanatory variable. Notably, when the assumption of homoscedasticity is met, residuals tend to form pattern less cloud of dots Garson, (2012). Based on the results shown in figure 4.3 there was slight violation since a pattern seems appear in some way. This was further assessed using the levene's statistic.

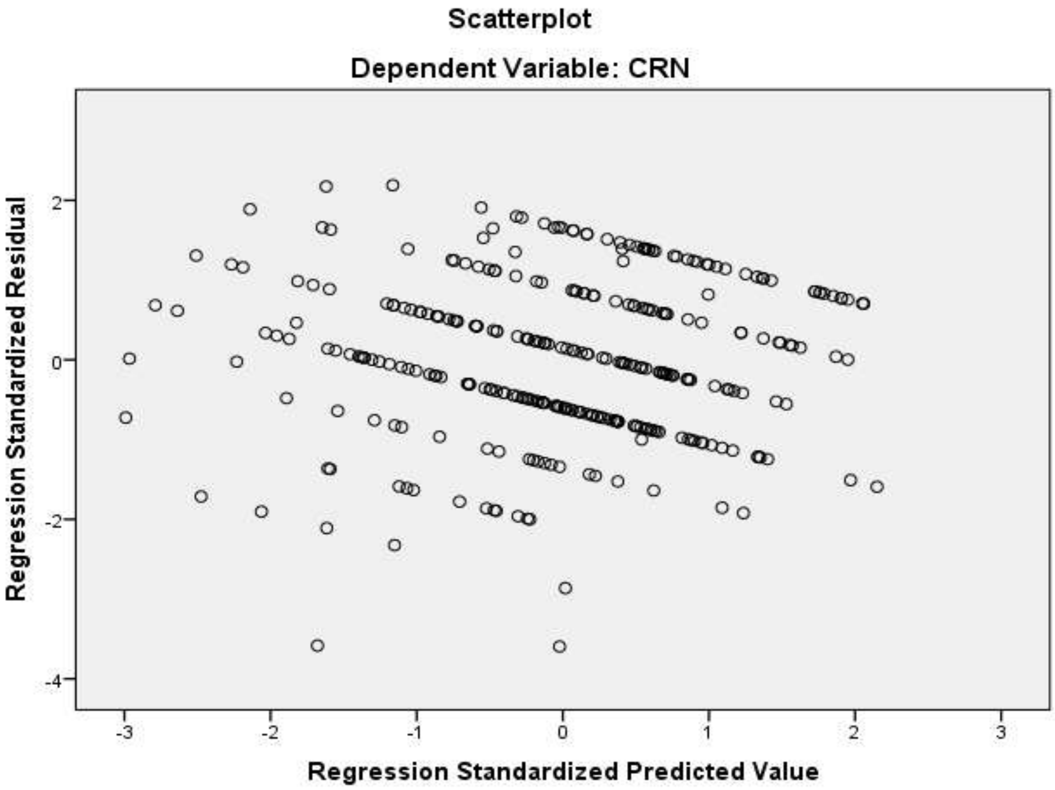


Figure 4.1: Standardized scatter plots of homoscedastic
Source: Survey Study (2020)

Even though there are various non-graphical methods of testing for homoscedasticity such as Brown and Forsythe's test, Welch test and Levine test Hair *et al*., (2010), this study used Levine test. According to Garson (2012), Levine's test is the most common test of homogeneity and it tests the assumption that each group of one or more categorical independent variables has the same variance on an interval dependent. The study rejects the null hypothesis that the groups have equal variances if the Levin statistic is significant at 0.05.

As indicated in table 4.16 mobile banking service quality 1.449, p=.167, Customer perceived value 0.603, p=.794 and Corporate perceived image 0.904, p =.522 all complied with the requirement of homogeneity of variance since they all were not significant.

Table 4.16: Levine's test of homogeneity

Name of Variable	Levine Statistic	df1	df2	Sig.
Mobile service quality	1.449	9	304	.167
Customer Perceived value	.603	9	304	.794
Corporate perceived Image	.904	9	304	.522

Source: Survey Study (2020)

4.10.5 Assumption of the independence errors

The assumption of independence errors or possibility of having serial correlations between errors was checked by carrying Durbin & Watson tests adopting the approach of Andy Field, (2013), in a regression model. The rule of thumb of Durbin *et al*., (1951) as cited by Field, (2013), is that a test statistic below 1 and above 3 indicates that there are serial correlations of the errors which bias the results. As the results in table 4.18 indicates, the value of Durbin–Watson statistic is 2.047, which indicates that there is no autocorrelation problem exists and is a sign that the assumption of the independence of errors is tenable Field, (2009, 2013).

Table 4. 17: Durbin–Watson test of the independence errors

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.652	.425	.420	.76164371	1.797

Source: Survey Study (2020)

4.11 Regression Analysis

Regression analysis measures the nature of the relationship between the dependent and independent variable. It tests the model fit to establish the predictive power of criterion variable in the Models. Regression analysis also provides information on how the conceptualized independent variables contribute to the variation in dependent (Hair *et al*., 2009; Solimun & Fernandes, 2017). This study used hierarchical and multiple regression model using Hayes, (2018) Process Macro in testing hypotheses.

4.11.1 Testing the influence of Control variables on Customer Retention

Table 4.19, **Model 1** reveals the results of the effect of control variables on customer retention as depicted in statistical model $Y = \beta_0 + \beta_1$ gender + β_2 age + β_3 education level + β_4 experience + β_5 income + ε. Findings show that all the controls were found to be insignificant as indicated by low beta values; Gender (β= -.001, p = 0.993); Age (β= 0.036, p = 0.585), Experience (β= 0.001, p = 0.984), Education (β= - 0.066, p = 0.393) and income (β= - 0.014, p = 0.867). The findings further indicate that this model has R^2 = 0.004, with an insignificant F-value of .264, p = 0.926. This means that 0.4% of the total variance in customer retention is accounted for by all the control variables in the study.

4.11.2 The Influence of Mobile Service Quality on Customer Retention

Model 2 of Table 4.19 shows the results of Hypothesis **H_{01}** which sought to examine the influence of mobile service quality on customer retention while controlling for the covariates as shown in the statistical model, $Y = C_0' + C + C_1'X + \mathcal{E}$. The findings of model 2 shows that all the covariates were insignificant in this model, Gender (β= .003, p = 0.974); Age (β= 0.036, p = 0.505), Experience (β= - 0.035, p = 0.577), Education (β= 0.045, p = 0.487) and income (β= - 0.065, p = 0.355). Most importantly, results show that mobile service quality positively and significantly influences on customer retention as shown by β= 0.565, p = 0. 000. Results further shows an increased R^2.317, with change in R^2 of 0.313, F= 145.663, p = 0.000. The change in R-Square of 0.313 implies that 31.1% of the total variance in customer retention is explained by mobile service quality. Based on these findings, hypothesis **H_{01}** was rejected by the study.

4.11.3 The Influence of Customer Perceived Value on Customer Retention

Table 4.18 and Model 3 indicates results for testing Hypothesis **H_{02},** testing the effect of customer perceived value (mediator) on customer retention while holding constant mobile service quality and the control variables depicted in statistical model, "$Y = b_0 + C + C_1'X + b_1M + \mathcal{E}$ ". Results of this model shows that the control variables remained insignificant in this model with p >.05. The findings also show that mobile service quality was significant with β= 0.372, p = 000. Furthermore, results reveal that perceived customer value (mediator) was found to have a positive and significant influence on customer retention as indicated by β= 0.363, p = 0.000.

Finally, the study findings indicate that this model an improved R^2 of 0.411, with change in R^2 of 0.094, F = 50.440, p = 0.000. This shows that holding constant control variables and mobile service quality constant, the mediator variable, customer perceived value explains 9.4% of the total variation in customer retention. Since customer value has a $\beta= 0.363$, $p < 0.5$, hypothesis **H_{02}** was also rejected by the study and conclusion made that customer perceived value influences customer retention.

4.11.4 The Influence of Perceived Corporate Image on Customer Retention

Finally, in Model 4 of table 4.18, the study presents results of how perceived corporate image (moderator) influences customer retention while holding constant all the control variables, mobile service quality and customer perceived value as depicted in the statistical equation "$Y = C_0' + C + C_1'X + b_1M + C_2'W + \varepsilon$ (H_{03})". The study findings reveal that all the control variables remained insignificance in this model with coefficient values of $p > 05$. Further, findings indicate that mobile service quality ($\beta= 0.347$, $p = 0.000$) and customer perceived value ($\beta= 0.342$, $p = 0.000$) were both found to be significant in this model. Finally, the study findings reveal that perceived corporate image positively and significantly influences customer retention as shown by $\beta = 0.142$, $p = 0.002$.

Results of this model shows a further improved R^2 of 0.429, with change in R^2 of 0.018, and a significant $F = 10.137$, $p = 0.002$ implying that the moderator, perceived corporate image accounts for 1.8% in customer retention. Based on these findings' hypothesis **H_{03}** is also rejected and conclusion made that perceived corporate image influences customer retention.

Table 4.18: Hierarchical Regression Results for Controls, Hypothesis H_{01}, H_{02} and H_{03}

Variable	Model 1		Model 2		Model 3		Model 4	
	β	*p-v*	β	*p-v*	β	*p-v*	B	*p-v*
Constant	.215	.537	.002	.996	.024	.929	-.005	.984
Gender	-.001	.993	.003	.974	-.018	.842	-.029	.739
Age	.036	.585	.036	.505	.018	.720	.024	.633
Experience	.001	.984	-.035	.577	-.030	.600	-.025	.662
Education	-.066	.393	.045	.487	.058	.338	.069	.246
Income	-.014	.867	-.065	.355	-.069	.290	-.079	.218
MSQ			.565***	.000	.372***	.000	.347***	.000
CustPerVal	-	-	-	-	.363***	.000	.342***	.000
PCorpImage	-	-	-	-	-	-	.142**	.002
R^2	.004		.317		.411		.429	
ΔR^2	.004		.313		.094		.018	
F	.276		145.663***		50.440***		10.137**	

Note: **p <.01, ***p <.001, Dependent Variable = Customer Retention, MSQ = Mobile Service Quality, CustPerValue = Customer Perceived Value, PcorpImage = Perceived Corporate Image

Source: Research data (2020).

4.11.5 Testing for mediation

Mediation test was conducted to assess the mediating effect of customer perceived value on the relationship between Mobile banking service quality and customer retention in the Kenyan banking industry. This study adapted MacKinnon *et al.*, (2012) procedure in testing for mediation. This procedure requires that the following conditions must exist for mediation influence to be established.

i. A significant relationship between X (Independent Variable) and M (Mediator). The following equation was applied; $M = a_0 + C + a_1 X + Ɛ$

ii. A significant relationship between M (Mediator) and Y (Dependent variable) with the following equation applied; $Y = b_0 + C + b_1 M + Ɛ$

iii. Testing the relationship between X (Independent Variable) and Y (Dependent variable) while holding constant M (Mediator). The following equation was applied; $Y = C_0' + C + b_1 M + C_1' X + \varepsilon$ (it is not mandatory for it to be significant for mediation to take place. If the test is significant, there is a partial mediation and if not, then there is a full mediation so long as condition i and ii above have been met.

iv. Testing for mediation = $a_1 \times b_1$ or **C** (total effect) – C' (direct effect)

v. Total effect (**C**) = The product of a_1b_1 + C' (direct effect)

Hayes (2018) Process Macro (Model 4) was used to test for the mediation hypothesis. Table 4.19 model 1 indicates the results for testing the first condition of mediation, that X (Mobile service quality) must have a significant relationship with M (Customer perceived value) while controlling for the covariates. Findings of the covariates in this model, gender ($\beta = 0.057$, $p = 0.557$), age ($\beta = 0.050$, $p = 0.370$), experience ($\beta = -0.012$, $p = 0.850$), education ($\beta = -0.035$, $p = 0.597$) and income ($\beta = 0.012$, $p = 0.872$), were all found to be insignificant. Results further indicate that mobile service quality has a positive and significant effect on customer retention as shown by $\beta = 0.532$, $p = 0.000$). Findings further shows that this model has R^2 of 0.290, with significant F-value of 21.683, $p = 0.000$. This means that 29% of the variance in customer perceived value is accounted for by all the variables in this model. Based on the above findings, the first procedure is fulfilled.

Model 2 of table 4.19 reveals the results of the second procedure of mediation, testing the effect of M (Customer perceived value) on Y (customer retention) while holding constant control variables. Findings show that all control variables were insignificant with $p > .05$. However, the findings reveal that customer perceived value has a significant relationship with customer retention impact as shown by $\beta = 0.363$, $p = 0.000$. Results show that this model has $R^2 = 0.411$, with significant F-value of 31.580, $p = 0.000$. This implies that 41.1% of the variance in customer retention is accounted for by all the variables in this model. Based on these findings, procedure two is also met by the study.

The same model 2 in table 4.19 was also used to test for the third condition which was meant to test the effect of X (Mobile service quality) on Y (Customer retention). The study results show that mobile banking service quality in this model was found to have a positive and significant relationship with customer retention as shown by $\beta = 0.372$, $p = 0.000$. Thus, step three is also confirmed in the study.

Finally, to get mediation results procedure as shown in condition iv was applied. The study results show that the mean indirect effect from the bias corrected percentile bootstrap analysis was found to be positive and significant, $a_1 \times b_1 = .532 \times .363 = .193$, SE= .036, CI= .127, 266. Since both, the confidence intervals are none zero, **H_{04}** is also rejected by the study. Since both path "a_1" and "b_1" of the conceptual framework are significant, the study reveals a partial mediation.

Results of Model 3 of table 4.19 reveals the results of the total effect. Findings show that all control variables remained insignificant even in this model. The total effect model 3 (Direct + Indirect) = .372 + .193 = .565 was found to be significant as indicated by $\beta = 0.565$, $p = 0.000$. The total effect of .565 imply that the two paths jointly contributes to a higher total effect than when individual models is used. This model shows R^2.317, F= 24.611, p=.000. This finding means that the total effect model accounts for 31.7% of the total variance in customer retention.

Table 4.19: Results of Mediation and Total Effect

Variables	Model 1 (CPV)		Model 2 (CR)		Model 3 (Total Effect)	
	B	*p-v*	β	*p-v*	β	*p-v*
Constant	-.062	.834	.024	.929	.002	.996
Gender	.057	.557	-.018	.842	.003	.974
Age	.050	.370	.018	.720	.036	.505
Experience	-.012	.850	-.030	.600	-.035	.577
Education	-.035	.597	.058	.338	.045	.487
Income	.012	.872	-.069	.290	-.065	.355
MobSQ	.532***	.000	*C'* = .372***	.000	.565***	.000
CustPerV	-	-	b_1 = .363***	.000	-	-
R^2	.290		.411		.317	
F	21.683***		31.580***		24.611***	
Mediation	= $a_1 \times b_1$ = .532 × .363		=. 193, SE = 036		CI = .127, .266	

Note: ***p <.001, CPV = Customer Perceived Value, CR = Customer Retention

Source: Research data (2020).

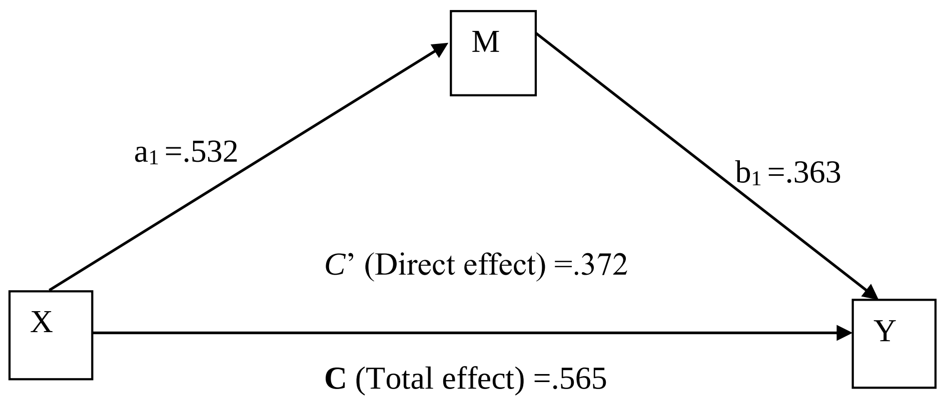


Figure 4.2: Mediation paths

Source: Hayes (2018)

4.11.6 Moderating effect of Perceived Corporate Image on Mobile Service Quality and Customer Perceived Value

Hypothesis H_{05} stated that perceived corporate image has no moderating effect on the relationship between mobile service quality and customer retention. Table 4.20 model

1 reveals the results of the study. Findings indicate that all control variables were found to be insignificant as indicated illustrated; Gender β =.053, p =.580, Age β =.068, p =.218, Experience β = -.023, p =.713, Education β= -.030, p =.653, and Income β =.004, p = .960). Furthermore, results show that mobile service quality (β = .485 p = .000) and perceived corporate image (β = .146, p = .005) were both found to have a positive significant influence on customer perceived value. Most importantly, the interaction results indicate existence of moderation as shown by β = -.091, p =.039. The findings show that the model has R^2 .312, F= 17.887 which was significant at p =.000. This implies that this model explains 31.2% of the variance in customer perceived value. Based on these findings, H_{05} is rejected by the study.

The finding of this interaction is further illustrated by Figure 4.4 which reveals that, at a lower level of mobile banking service quality, the effect on customer perceived value is high for the customers with high perceptions of corporate image than for those customers whose perceptions of corporate image is low. The figure further reveals that when the level of mobile banking service quality increases, the effect on customer perceived value increases for both customers with low and high perceptions of corporate image. However, the increase is higher for those customers whose perceptions of corporate image is low than those customers with high perceptions of corporate image. Thus, the management should target these customers through its marketing strategies to retain them in their institutions.

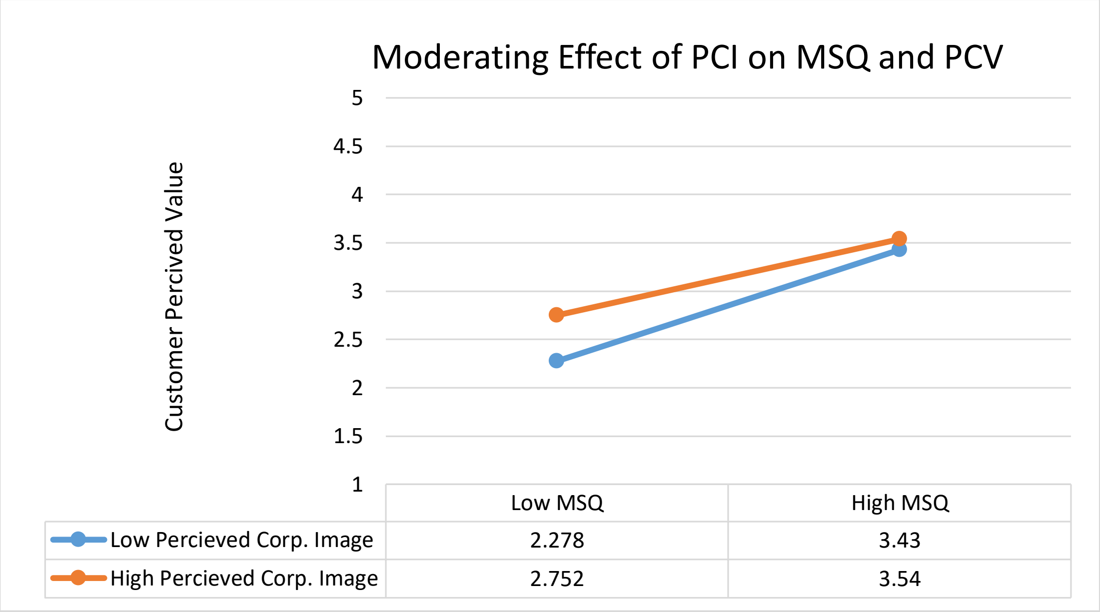


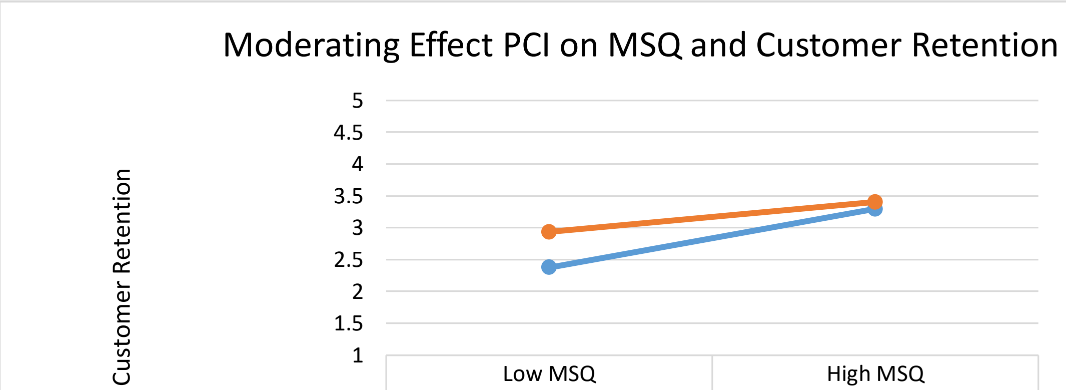
Figure 4. 3 Moderating Effect of Perceived Corporate Image on Mobile banking Service Quality and Perceived Customer Value

4.11.7 Moderating effect of Perceived Corporate Image on Mobile Service Quality and Customer Retention

To test hypothesis H_{06}, the study hypothesized that perceived corporate image has no moderating effect on the relationship between mobile banking service quality and customer retention. Table 4.20, model 2 shows the results of this hypothesis. All the control variables were included in the analysis. Findings show that none of the controls variable was significant; gender (β = -.034, p =.700), age (β = .025, p = .613), experience (β = -.036, p =.526), education (β = .060, p =.316), and income (β = -.071, p = .265).

The study findings further indicate that mobile service quality (β =.347, p = .000), customer perceived value (β =.337, p = .000) and perceived corporate image (β =.167, p= .000) were all found to have a positive and a significant influence on customer retention in the model. Results show that the model has R^2. 443, F= 24.943, significant at p = .000. In addition, results indicate that the interaction of perceived corporate image on the relationship between mobile banking service quality and customer retention was significant as shown by $\beta = -.112$, $p = .032$. Based on the findings discussed above, H_{06} is also rejected.

These results are further demonstrated by figure 4.4, which shows that at a lower level of mobile banking service quality, customer retention is high for those customers with high perceptions of corporate image than for those customers whose perceptions of corporate image is low. However, as the level of mobile banking service quality increases, customer retention increases for both groups of customers, however, the increase is higher for those customers whose perceptions of corporate image is low than those customers with high perceptions of corporate image. This demonstrate the corporate image plays a significant role; hence banking organizations should equally concentrate on building their corporate image as they improve the quality of their mobile banking services as both variables increases customer retention.



	Low MSQ	High MSQ
Low Percieved Corp. Image	2.374	3.292
High Percieved Corp. Image	2.932	3.402

Figure 4. 4: Moderating effect of perceived corporate image on mobile banking service quality and perceived value

4.11.8 Moderating Effect of Perceived Corporate Image on Perceived Customer Value and Customer Retention

Hypothesis H_{07} postulated that perceived corporate image has no moderating effect on the relationship between customer perceived value and customer retention. This hypothesis was tested in the same Model 2 of table 4.20. All control variables were included in the analysis and none was found significant. Findings indicate that the interaction effect of perceived corporate image on the relationship between customer perceived value and customer retention is positive and significant as shown by β =.139, p = 0.007. Since the p- value associated with the interaction effect is less than 0.05, the null hypothesis is rejected and hence conclusion made that corporate image has a moderating effect on the relationship between customer perceived value and customer retention.

The interaction results are illustrated by Figure 4.5 which shows that at a lower level of customer perceived value, customer retention is at the same level. However, as customer perceived value increases, customer retention increases with both groups of customers, but the increase is high with those customers having high perceptions of corporate image.

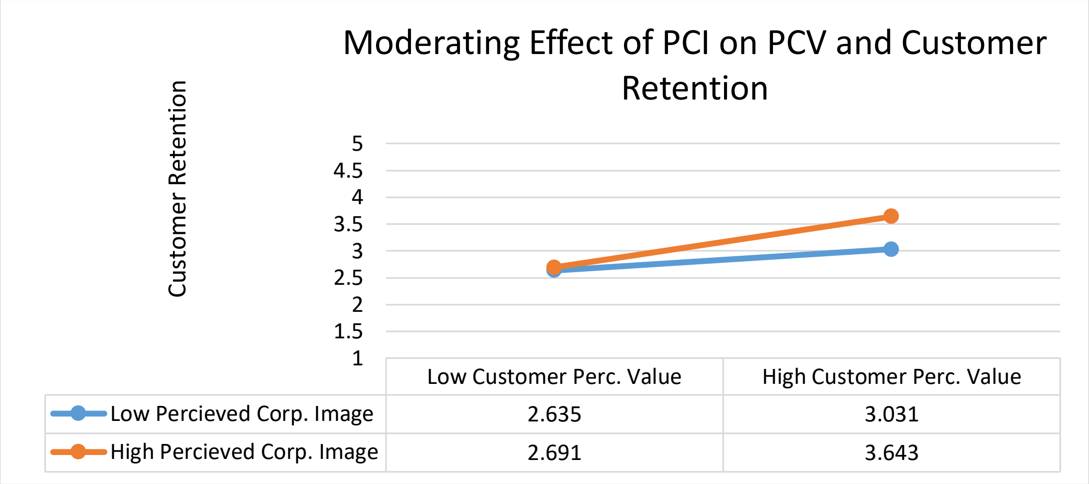


Figure 4.5: Moderating Effect of Perceived Corporate Image on Perceived Customer value and Customer Retention

The above Figure 4.5 demonstrate that corporate image is a remedy for customer perceived value and hence, firms should increase their efforts on enhancing their corporate image as it also plays a significant complementary role in customer retention.

Table 4.20: Moderation Results of PCI on the Study Variables

Variable	Model 1 (Customer Perceived Value)		Model 2 (Customer Retention)	
	B	*p-v*	β	*p-v*
Constant	-.045	.877	.041	.877
Gender	.053	.580	-.034	.700
Age	.068	.218	.025	.613
Experience	-.023	.713	-.036	.526
Education	-.030	.653	.060	.316
Income	.004	.960	-.071	.265
MSQ	.485***	.000	. .347***	.000
CPV	-	-	.337***	.000
PCI	.146**	.005	.167***	.000
MSQ × PCI	-.091*	.039	-.112*	.032
CPV× PCI	-	-	.139**	.007
R^2	.312		.443	
F	17.887***		24.943	

Note: **p* <.05, ***p* <.01, ****p* <.001, MSQ = Mobile Service Quality, CPV= Customer Perceived Value, PCI= Perceived Corporate Image, MSQ × PCI and CPV × PCI = moderation effect

Source: Research data (2020).

4.11.9 Moderating Effect of Perceived Corporate Image on the Indirect Effect of Mobile Service Quality and Customer Retention through Customer Perceived Value

Finally, hypothesis H_{08}, was hypothesized that perceived corporate image has no moderating effect on the indirect relationship between mobile banking service quality and customer retention through customer perceived value. To test for this hypothesis, data probing was done at three levels of the moderator (perceived corporate image); at 1 standard deviation below the mean, at the mean level and at 1 standard deviation above the mean as shown in table 4.21.

Table 4.21: Conditional Process Analysis the Indirect Effects of perceived corporate image

	Effect	SE	LLCI	ULCI
Low perceived corporate image (-1 SD)	.114	.050	.024	.224
Mean perceived corporate image (mean = 0)	.163	.036	.100	.240
High perceived corporate image (+ SD)	.187	.051	.100	.296

Source: Research Data (2020)

Results of the test as shown in table 4.1 indicate that the moderated mediation happened between mobile banking service quality and customer retention via customer perceived value at all the three levels of perceived corporate image (low level b =.114, CI =.024, .224, mean level b =.163, CI =.100, .240 and high level b = .187, CI =.100, .296). However, results reveal that the moderated mediation effect was much stronger at the higher level of perceived corporate image (1 standard deviation above the mean) than at the lower level and at the mean level (1 standard deviation below the mean and at the mean level). The findings are further illustrated by Figure 4.6

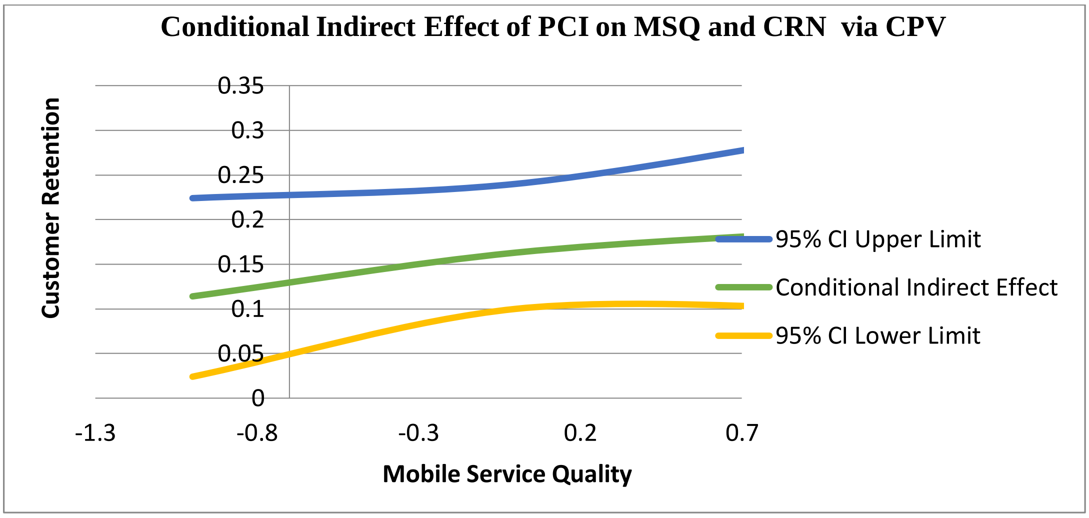


Figure 4.6: Moderation of Corporate image on Mobile service quality and Customer retention via Customer Perceived Value

4.12 Hypothesis Testing Summary

A summary of all the tested hypotheses of the study are shown on table 4.22.

Table 4.22: Summary Results of Hypotheses Testing

	Hypotheses Statement	β	p-v	LLCI	ULCI	Results
H_{01}	Mobile banking service quality has no significant effect on customer retention	.565	.000	-	-	Rejected
H_{02}	Customer perceived value has no significant effect on customer retention	.363	.000	-	-	Rejected
H_{03}	Perceived corporate image has no significant effect on customer retention	.142	.000	-	-	Rejected
H_{04}	Customer perceived value has no mediating effect of on the relationship between mobile banking service quality and customer retention	.193	-	.127	.266	Rejected
H_{05}	Perceived corporate image has no moderating effect on the relationship between mobile banking service quality and customer perceived value	-.091	.039	-.178	-.005	Rejected
H_{06}	Perceived corporate image has no moderating effect on the relationship between mobile banking service quality and customer retention	-.112	.032	-.215	-.010	Rejected
H_{07}	Perceived corporate image has no moderating effect of on the relationship between customer perceived value and customer retention	.139	.007	.038	.240	Rejected
H_{08}	Perceived corporate image has no moderating effect on the indirect relationship between mobile banking service quality and customer retention via customer perceived value.	.114 .163 .187	- - -	.024 .100 .100	.224 .240 .296	Rejected

Source: Research Data, (2020)

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents summary of the findings of the study obtained in the the previous chapter, in light of objectives and hypotheses. It discusses the results in relation to the theoretical underpinnings and empirical findings in the existing literature with a view of making conclusions. The chapter also presented conclusions, implications, recommendations, and limitations of the study. In addition, areas of further research are provided.

5.1 Summary of the Findings

The purpose of this study was to examine the effect of mobile banking service quality, customer perceived value and corporate image on customer retention in Kenya's banking industry. Additionally, the study examined the mediating effect of customer perceived value on the relationship between mobile banking service quality and customer retention. Further, the study examined the moderating effect of perceived corporate image on the relationship between; mobile banking service quality and customer perceived value, mobile service quality and customer retention, and customer perceived value and customer retention in Kenya's banking sector. Finally, the study examined the moderating effect of corporate image on the indirect effect of mobile service quality on customer retention via customer perceived value in Kenya's banking sector. The study was motivated by the need to contribute to the body of knowledge on consumer behaviour by examining the complex interactions of the key factors that ultimately influence a consumers' decision to stay with their banking service providers or to leave. The study controlled for variables that have been found to affect customer retention. These variables include; customer age, customer gender, customer's duration of service experience, customer's level of education and customer's income.

This study has four important findings: firstly is that mobile service quality, customer perceived value and perceived corporate image positively and significantly influences customer retention. Secondly, results indicate that customer perceived value mediates the relationship between mobile service quality and customer retention. Thirdly, results show that perceived corporate image moderates the relationship between, mobile banking service quality and customer perceived value, mobile banking service quality and customer retention and customer perceived value and customer retention. Finally, the study found that perceived corporate image moderates the indirect relationship between mobile banking service quality and customer retention via customer perceived value.

5.1.1 Mobile Banking Service Quality and Customer Retention

The first objective of the study was to assess the effect of mobile banking service quality on customer retention. The study established that indeed, mobile banking service quality has a positive and significant effect on customer retention. A possible explanation for these results may be that customers consider the quality of the mobile banking services when evaluating the service provider in order to make a decision on whether to continue using the service or not. This may also mean that higher the quality of mobile banking service as perceived by customers, the higher the retention rates and to the contrary, the lower the quality of the mobile banking services, the higher the defection rates or customer churn.

These results are in consistent with the empirical findings of previous research. For example, Aghdaie and Faghani, (2012) in their study to examine the relationship between mobile banking services and customer satisfaction arrived at a conclusion that increase in service quality of the mobile banking can satisfy and develop customer satisfaction that ultimately retains valued customers. This finding also corroborates Srivastava and Sharma's (2013) assertion that the greater the quality perceived, the stronger the relationship commitment and repurchase intentions. Thus, mobile banking service quality positively and significantly influences customer retention. These results also reflect those of a study in the Indian mobile banking industry, by Surendra,(2015), who established that mobile banking service quality is one of the critical success factors that influence the competitiveness of an organization. He recommends that banks must improve their mobile banking service quality in order to enhance their reputation and improve on their customer retention. Surendra,(2015), findings also match those observed in earlier studies by Reichheld, (1996), and Ranaweera and Neely (2003), where they both establish that there was a positive association between perceived service quality and customer repurchasing or retention.

This study identified three dimensions of mobile banking service quality as key factors that affects customer retention. These factors include; mobile banking service quality-Fulfilment, mobile banking service quality- privacy, and mobile banking service quality-efficiency. This findings broadly supports the work of other studies in this area linking these dimensions of mobile banking service quality with customer retention. For instance, the findings are in agreement with the findings of Parasuraman *et al*., (2005), which identified efficiency and fulfillment as the most important dimensions in E-S-QUAL. Similarly, Surendra, (2015), established that Mobile banking service quality dimensions of efficiency, availability, fulfilment of the mobile banking services, and the privacy have positive relationship with customer retention. In support of this argument too is Tam and Oliveira, (2017b) who observed that the efficiency of m-banking services is one of the critical success factors that influence the competitiveness of an organization. Efficiency is where customers are able to perform mobile banking tasks at a high level which enhances time saving and reduce effort and can be a source of individual performance. Whenever customers accomplish such m-banking tasks and perform at a high level, it becomes a great source of satisfaction and gratification to the customer, with feelings of mastery and pride and hence they are more likely to may a stay decisions. To the contrary, whenever a customer experiences low performance and not achieving the goals might be experienced as dissatisfying or even as a personal failure, hence, they are likely to make a switch decision. Surendra,(2015) concluded that efficiency is key to making a stay or switch decisions since customers have to make a choice among various service providers by making a trade-off between relationships and bank's efficiency.

This study established that mobile banking service quality- privacy is critical in customer's evaluation of the quality of service. These findings also affirms the acknowledgment by the Central bank of Kenya (CBK, 2019) that Cyber security Risk remains a major threat to all payment systems. This is because Payment Service Providers operate in an interconnected and interdependent environment where the consequences of a cyber-attack on one can cascade to numerous others and hence, they underscored the importance of security/privacy for building trust amongst mobile banking customers. An interesting contradicting observation was however established in a study by Sagib and Zapan,(2014), who established that security/privacy dimension of mobile banking service quality did not have any significant influence on customer retention yet in their findings, reliability and efficiency were found to have significant influence on customer retention in the context of Bangladesh banking industry. Based on the above discussion, there is sufficient evidence to prove that mobile banking service quality and customer retention are highly connected in the Kenyan banking industry.

5.1.2 Customer Perceived Value and Customer Retention

The second objective of this study was to examine the effect of customer perceived value on customer retention. The study hypothesized that Customer perceived value has no significant effect on customer retention. The study findings however, reveal a positive and significant effect of customer perceived value on customer retention. This study argue that customers engage in a matching process in establishing value for their money. Hence, where services match or exceed the customers' perceived value expectation, they are influenced to make repeat purchases. Such repeat purchases may in the long run facilitate the formation of relationships that may foster customer retention. Another possible explanation for this is that, customers are motivated stay with any service providers who are perceived to deliver services with more value that meet or exceed their expectation and will churn or defect from those service providers who deliver services with less value that fail to meet their expectations.

These findings support previous research in customer relationship management which links customer perceived value and customer retention. For instance, Milan *et al*., (2015) established that clients in the corporate market are more willing to keep relationships with existing suppliers if they are being attended to with elevated value. In their survey among highway commuters with alternative technological improvements, particularly an upgraded mobile devise in electronic toll collection (ETC) services, they established that technological advancement leads to customers' intention to shift to and patronage new technologies. The findings also corroborate the ideas of Carlos *et al*.,(2006), who suggested that a relationship journey between a bank and its customer where both parties hope to obtain certain advantages and benefits (value) through the working and developing of the relationship, the advantages that the service provider obtains from the relationship are linked to the loyalty of the customer. A faithful customer will generate more income than a customer who abandons the relationship. This loyalty also leads the customer to increase his/her volume of business with the organization. The latter becomes more closely acquainted with the evolution of the customer's needs and expectations, so that it will be in an advantageous position to adapt to them. This study findings portray a consistency with previous studies conducted in both similar and different settings and contexts. In this regard, a conclusion is drawn that customer perceived value does affect customer retention.

5.1.3 Perceived Corporate Image and Customer Retention

The study hypothesized that perceived corporate image has no significant effect on customer retention. However, the study findings established a positive and significant effect of perceived corporate image on customer retention. It may be argued that where a customer has an accumulation of good feelings, ideas, attitudes and experience with a bank's mobile banking services, they are likely to form a favorable perception of the bank's image and hence, are likely to be retained. However, where customers have bad feelings, ideas, attitudes or experiences with a bank's mobile banking services, they are likely to form an unfavorable perception about the bank's image which may result in the customer switching to competing brands or their substitutes.

The study findings are consistent with a large body of research that established a significant positive relationship between corporate image and customer retention. For example, results of a study by Nguyen and Leblanc, (2001) reveal that the degree of customer loyalty has a tendency to be higher when perceptions of both corporate reputation and corporate image are strongly favorable. This is also supported by the findings of, Ball *et al*., (2006), who found that the more positive the corporate image, the greater the satisfaction with the firm's service, and the greater the trust and the more likelihood that the customers are retained by the firm. Similarly, the results are in tandem with earlier findings of Minkiewicz *et al*., (2011), who observed that a strong corporate image enhances customer satisfaction with the service experience which lead to retention of customer in the leisure services sector. The study findings are also in consistent with conclusions made by Wu, (2013) who observed that when customers form a positive overall impression of the corporate image of an organization, they are more likely to make repeat purchases and recommend them to others. The results are also are in agreement with those obtained by Khan and Rizwan, (2014), who suggest that fine corporate image gives rise to customer loyalty and aids in maintaining that relationship with the consumers, hence, customers are persuaded to buy the firm's products repeatedly. This was also echoed by Bravo *et al*., (2009) who established that image attributes of banks such as their relationship quality, stability, credibility and customer service have enormous effect on customer patronage and therefore concluded that banks with a good brand image would be more likely to benefit from customer selection than those with a poor image. Hence, perceived corporate image play a key and influential role in enhancing customer retention.

An interesting contrasting revelation was also established by Mickiewicz *et al*., (2011) who established that positive corporate image negatively influence customer satisfaction. They aver that this happens in case where the image has created unrealistic expectations for customers to the extent that where these expectations are not met, customers are likely to be very dissatisfied and hence, may switch to competing products. They therefore proposed that a reasonable approach to remedy this issue could be through creation of corporate images that realistic enough to match customer expectation. Overall, this study strengthens the idea that perceived corporate image has a positive and significant effect of on customer retention.

5.1.4 Mediating Effect of Customer Perceived Value on the Relationship between Mobile Banking Service Quality and Customer Retention

The fourth objective of this study was to examine the mediating effect of customer perceived value on the relationship between mobile banking service quality and customer retention. The findings of the study confirm that indeed, customer perceived value mediates the link between mobile service quality and customer retention. These findings confirm the significant role of the customer perceived value in helping the mobile banking service providers to enhance their relationships with their customers. The findings reported here shed new light on the mediating effect of customer perceived value on the study variables. This is additional new knowledge and thinking to theory and literature where most of the prior studies had only established the direct effects of the study variables. These findings reveal a partial mediation model as both the direct effect and indirect paths were found to be significant. The reason might be due to the complexity of the behaviours under the study, as there may be a variety of causes of those behaviours, hence, a single mediator would only partially explain the relationship between the independent and the dependent variables Baron and Kenny, (1986) views supported by MacKinnon *et al*., (2012).

The mediating effect of the customer perceived value on the relationship between mobile banking service quality and customer retention shows when a bank offers superior quality of mobile banking services, it improve the customer perceived value and which will in turn influence patronage of the m-banking services. This shows how critical it is for the mobile banking service providers to offer their customers with the right information and quality m-banking services via m-banking channels since this contributes to high perceived value in the mind of their clients which influences their decisions no whether to stay with or switch from the m-banking services. Thus, the m-banking platforms or channels through which the banking institutions enable their customer to carry out m-banking activities should be efficient, reliable, offer faster services, simple to use or convenience in procedures, offer value-added services and give customer support services, thus, delivering superior consumer value that enhances retention. This is in line with the argument of Nguyen and LeBlanc, (1998) who claimed that a positive and significant path between service quality and perceived value indicates that the higher quality of service perceived by the customers, the higher the value perceived by the customers leading to customer retention.

5.1.5 Moderating Effect of Perceived Corporate Image on the Relationship between Mobile Banking Service Quality and Customer Perceived Value

The study hypothesized that perceived corporate image does not have a moderating effect on the relationship between mobile banking service quality and customer perceived value. The results however reveal that the perceived corporate image moderates the relationship between mobile banking service quality and customer retention. The findings of this moderation also contribute to new knowledge. The findings of the study reveal that at lower levels of mobile service quality, customer perceived value is high with customers having high perceptions of corporate image than those customers whose perceptions of corporate image is low. As mobile service quality increases, customer perceived value increases with both groups of customers, but the increase is high with those having low levels of corporate image.

This may be argued that corporate image acts as a remedy in situations where the bank's quality of services are low. This is because when a bank's service quality is low, customers who believe that the bank is reputable, having high corporate image will still believe that they will get value for their money due to its image unlike customers with low perceived corporate image. Hence, to bring customers having low perceptions of corporate image on board and perceive value in their investment, bank management need to invest resources in both the quality of their m-banking services and corporate image as both variables work hand in hand and have an influence on customers' perception of value. The higher the perceived corporate image and m-banking service quality, the higher the customer perceived value and vice-versa.

5.1.6 Moderating Effect of Perceived Corporate Image on the Relationship between Mobile Banking Service Quality and Customer Retention

Hypothesized H_{06} stated that perceived corporate image has no moderating effect on the relationship between mobile banking service quality and customer retention. The hypothesis was however rejected because the study findings confirmed that the interaction effect of corporate image on the relationship between mobile banking service quality and customer retention is significant. These results also bring some new insights into literature that perceived corporate image moderates the relationship between mobile banking service quality and customer retention.

This study findings as previously shown in Figure 4.5 reveals that the lower the levels of the mobile banking service quality and corporate image the lower the customer retention. However, as the service quality and corporate image increases, it is evident from the figure that customer retention increases even with customers having low levels of corporate image. It is further illustrated by the figure that when customers' perception of the bank's image is low or unfavorable, the relationship between the bank's mobile banking service quality and customer retention is weak. However, as the banks' corporate image is enhanced, customer's perceptions becomes more favorable which enhances the relationship between mobile banking service quality and customer retention. This is a clear demonstration that corporate image plays a significant role in strengthening the relationship between mobile banking service quality and customer retention.

The findings of this study support few empirical studies which have investigated the moderating role of perceived corporate image in different contexts. For example, a study by Narteh and Braimah, (2019) on the moderating role of brand image on the relationship between corporate reputation and retail bank selection established that brand image moderates the link between corporate reputation and bank selection. This is also echoed by Hsieh and Li, (2008) whose findings on the moderating role of brand image on public relations perception and customer loyalty established that the impact of public relations perception on customer loyalty is stronger and more significant when the brand image is favorable. Their study further indicated that if the image was perceived to be unfavorable, the effect of relations perception on customer loyalty was negligible. The moderating role of corporate image is further affirmed by the findings of Gautam, (2011) whose results indicated that corporate image plays a moderating role between perceived justice dimensions and customer satisfaction. Thus, the more favourable the customers perception of bank’s corporate image, the stronger the relationship between mobile banking service quality and customer retention.

5.1.7 Moderating Effect of Perceived Corporate Image on the Relationship between Customer Perceived Value and Customer Retention

The study postulated that that perceived corporate image has no moderating effect on the relationship between customer perceived value and customer retention. This hypothesis was however rejected because the findings established the existence of the interaction of perceived corporate image on the relationship between customer perceived value and customer retention. These findings add some new knowledge to theory and literature that corporate image exerts a conditional effect on customer perceived value and customer retention.

The study findings are illustrated by Figure 4.6. A possible explanation for this is that when the customer's perception of a bank's image is low, the relationship between customer perceived value and customer retention is weak. However, as the banks' corporate image is enhanced, the customer's perception of value is increased leading to higher rates of customer retention. Eventually, when the bank's corporate image is highly regarded by its customers, the relationship between customer perceived value and customer retention is strong. This demonstrate that perceive corporate image plays key remedial role for customer perceived value in a bank in the sense that even where customer perceived value is low but the bank's corporate image is high, the rate of customer retention would still be maintained at a higher level.

The findings of this study support empirical studies which have investigated the moderating role of perceived corporate image on customer's behavioural intentions. For instance, a study on moderating role of brand image on the relationship between customer perceived value and customer's perception of public relation on customer loyalty, by Rahi, (2016). The results of this study depicted that brand image moderate the relationship with customer perceived value and customer's perception of public relation. In support of this findings, Rabach and Tarus, (2013) established that corporate image moderate the relationship between service value, service quality, social pressure and customer loyalty. Based on the above discussion and study findings, we conclude that perceived corporate image is a good moderator on the relationship between customer perceived value and customer retention, thus supporting literature and theory.

5.1.8 Moderating Effect of Perceived Corporate Image on the Indirect Relationship between Mobile Banking Service Quality and Customer Retention via Customer Perceived Value

Finally, the study sought to determine the moderating effect of perceived corporate image on the indirect relationship between mobile banking service quality and customer retention via customer perceived value. It was hypothesized that perceived corporate image has no moderating effect on the indirect relationship between mobile banking service quality and customer retention via customer perceived value.

The study findings confirm that perceived corporate image moderates the indirect link between mobile banking service quality and customer retention via perceived customer value, hence H_{08} was rejected by the study. The results of the moderated mediation model indicate that the indirect effect is moderated at the low level of perceived corporate image, at the mean level and it increases with high levels of perceived corporate image as shown by Figure 4.7. It can also be inferred from the results that building superior corporate image may serve as a remedy where customers' perception of mobile service quality and customer perceived value is low, moderate or high since it has a substantial effect on customer retention. Thus, we suggest that banking service providers need to invest in mobile service quality, perceived customer value and corporate image as all these variables have been identified in this study to offer a competitive edge and have an influence on customer retention. These findings contribute to knowledge, theory, and literature.

5.2 Conclusion of the Study

This study provides a comprehensive integrated model for understanding mobile banking service quality, customer perceived value, perceived corporate image and customer retention in the banking industry in Kenya. On the basis of this study results, it has been clarified that mobile banking service quality, customer perceived value and perceived corporate image are the powerful drives of customer retention. Moreover, this study concludes mobile banking service quality influences the customer's perceived value which enhances customer retention. Additionally, the study reveals that customer's perception of the banks' corporate image influences their attitudes towards the bank and how they make their commitment to patronize the mobile banking services consistently in the future. The implication of this is that the customer decisions to commit to stay with the bank is partly depend on their perceptions towards the banks' corporate image, quality of the banks' mobile banking services and the customer's perceived value, hence the variables used in this study plays a critical role in the customer's decision making the process.

5.3 Implications of the Study Findings

The study findings have several implications which can be broadly grouped into theory, practice, and policy contribution and finally suggestions for future research.

5.3.1 Implication to Theory

This study carries several theoretical contributions to the customer relationship management and consumer behaviour literature from theoretical perspective. First, this study adopted a comprehensive moderated mediated model to investigate the effects of mobile banking service quality, customer perceived value and corporate image on customer retention. Moderated mediated models have not yet been featured in the extant services marketing or bank marketing literature for enhancing customer retention to mobile banking services via customer perceived value and perceived corporate image. The study findings therefore provide new insights, that the effects of mobile banking service quality on customer retention are mediated by customer perceived value and these mediation effects are moderated by perceived corporate image. The findings further contribute to knowledge through the mediation and moderation effects models.

Second, it is worthy to note that this study was carried out in Kenya which is a developing country in eastern part of Africa. In Kenya and indeed other developing countries, the mobile banking technologies are at the initial stages in the product life cycle and experiencing enormous e-banking growth in mobile banking services. This notwithstanding, insufficient research exists surrounding mobile banking services and customer retention in the Kenyan context, hence, this study provides valuable insights into the customer retention and mobile banking services research literature.

Thirdly, the study findings support all the theories that were adopted. The used the leaky bucket theory developed by Ehrenberg, (1988) to emphasize the significance of maintaining a consistent base of customers for a business to operate at a profitable level while recognizing that customer acquisition was still important to replace the customers who may switched (leaked) for whatever reasons. The theory postulates that a company can only succeed in the world of business if the company has restricted the flow of old customer and both a flow of new customers. The study also used the customer value/retention model developed by Weinstein, (2002) to theoretically argue a relationship between service quality, customer perceived value, and customer retention. Finally, the M-S-QUAL model designed by Surendra, (2015), was used to theoretically argue a relationship between mobile banking service dimensions and customer retention. The study therefore contributes to understanding these theories in the mobile banking service context.

The study also supports prior literature and recent advances in the general marketing and consumer behaviour literature, which have all reported that service quality, perceived customer value and perceived corporate image greatly influences consumer behaviour. Most important contribution is evident in the complex moderated mediation model used in this study. Previous studies have mainly focused on simple main effects and mostly of bi-variate nature ignoring the accepted fact that consumer decision making is a complex and comprehensive process. Simple models therefore fail to capture the complex nature of consumer decision making. This study therefore breaks into this new ground of embracing a more complex models of consumer behaviour.

Overall, the findings are insightful and make important contributions to the services marketing and customer behaviour literature, especially in the banking services marketing context. This study is useful to the researchers who are interested in furthering their understanding of mobile banking services.

5.3.2 Implication to practice

Besides the provision of theoretical contributions, this study also provides several practical implications for mobile banking service providers looking to enhance their rates of customer retention by providing quality services.

Firstly, the findings of this study indicated that the mobile banking service quality influences customer retention. The first mobile quality dimension that was found to positively affect customer retain is mobile banking service- fulfillment. The findings indicates that when the mobile banking service' promises about service delivery are fulfilled, it increases the chances of customers' decision to stay with the service provider rather than switching. Hence, the bank's managements should strive to ensure the provision promised services to their customers within the promised timeline and to ensure that information that they provide are accurate and up-to-date. Mobile Banking Service- Privacy was also identified as a key driver to customer retention. The m-banking service providers should put in place systems that the banks' mobile service platforms are safe and protect customer information. For instance, to enhance the security of the financial transactions, banks should provide secure and unique personal identification numbers and always send login and transaction alerts to registered contact numbers and e-mail addresses. Standing on the suggestion of Jun and Palacios (2016), mobile banking service providers should always take a proactive attitude toward the adoption of newly developed authentication and encryption methods that work over the mobile network as this enhances customer confidence and retention.. Additionally, mobile banking service- efficiency was also found to influence customer's decision to stay or to switch to other service providers. It should also be noted that one of the major reason customers prefer mobile banking services over other banking platforms relates to the unique benefits that accrue from use mobile service, such as efficiency, convenience and mobility. Base on this study's revelations, the mobile banking service providers should therefore, improve the overall efficiency and convenience level by providing the mobile banking applications that are compatible across different devices and operating systems and by developing gadget-specific mobile banking applications that enable customers to utilize the devise's greater capabilities and larger screen than those of mobile phones. This also assures the fulfilment of the mobile banking services promises made to the satisfaction and delight of the customers and hence reducing customer switching rates.

Customer perceived value was also found to be a significant factor in enhancing customer retention levels in the mobile banking service context directly or indirectly. These findings provide important guideline for the mobile banking service providers with regards to making their service proposition unique and differentiate them from their direct competitor’s services or substitutes and hence guarantee customers value for money and high-quality service. This eventually triggers a patronage and a campaign by customers via word of mouth of the nature of the service.

The study also established that a favorable corporate image plays an important role by influencing customers’ attitude towards the firm’s mobile banking service. Indeed, the study established that perceived corporate image plays a complementary role or remedial role to low levels of mobile banking service quality. In this regard, the mobile service providers should channel its resources in building their image to the satisfaction of its customers leading to favorable image formation which enhances customer retention levels. The mobile banking service providers should further ensure that they do or carry out their business in an ethical way, be open and responsive to consumers’ needs, and contribute or invest back to the society as all these aspects improves the banks image that leads to customer retention.

5.3.3 Implication to Policy

The findings of this study will help the policymakers in banking sector in developing policies and techniques to attract new customers, to prevent increases in customer defection rates and improve retention rates. These policies should be able to take into account such key factors as mobile banking service quality, customer perceived value and corporate image which affect the potential to improve retention rates.

Firstly, mobile banking service quality dimensions such as privacy proves to be among the key concerns of mobile banking customers in general. Therefore, it is recommended that mobile banking service providers make special efforts to develop and disseminate security and privacy policies to their consumers. For example, they can send out short messages or e-mails explaining their security and privacy policy to customers or hold sensitization sessions with them.

Additionally, the study established that customer perceived value influences customer retention. The policy makers should therefore devise value-centered strategies that focus on customer perceived value by investing in building stronger relations and bonds with their customers through provision of additional benefits that enhance customer retention. Furthermore, policies should be put in place to ensure continuous innovations to services offered to customers as this makes customers feel good and make the stay decision with the firm.

Finally, this study established that perceived corporate image plays an important role in customer retention. Hence, policy makers should have policies to ensure that they do their businesses in an ethical way, invest back to the society through corporate responsibility, and also device promotional strategies that appeal to the heart and soul of customers. Moreover, there is need for banks to have policies that project an image that is attractive, caring and friendly to all as all these enhances customer retention.

5.4 Suggestion for Further Research

This study has contributed and enriched the body of knowledge on the complex nature of consumer decision making processes. However, it has opened up gaps that future studies may pursue to enhance knowledge in this area. First, the study used quantitative data in analyzing its findings, future studies may consider incorporating both quantitative and qualitative data as this may reveal other aspects that enhances customer retention than those mentioned in the current study. In addition, the study adopted a cross-sectional research design as all data were collected at one point in time; which makes it difficult to generalize the findings and account for changes that may occur in the mobile banking technologies which may tilt the customer’s attitude and perception of quality, value and image. Future research may, therefore, consider using longitudinal designs to seek more evidence for the assumptions that have been made in this study. Furthermore, data collected for this study was from only one region of the Republic of Kenya. Future studies should consider testing the present model on other populations and on a wider area and a large target population to validate our findings.

Further, this study used customer perceived value and perceived corporate image as unidimensional constructs, future studies may consider adopting the moderated mediation model used in this study to test these multidimensional constructs as these may provide more insights into theory and practice. Finally, further research is needed to investigate the robustness of this study findings, and to determine the extent to which the findings can be generalized to other contextual settings and in other jurisdictions.

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APPENDICES

Appendix I: Moi University Introductory Letter for Research

MOI UNIVERSITY
SCHOOL OF BUSINESS AND ECONOMICS

Tel: (0321) 43620
Fax No: (0321) 43360
Telex No.35047 MOI VARSITY

Box 3900
Eldoret
KENYA

RE: SBE/PHD/013/2015

DATE: 24th APRIL, 2019

TO WHOM IT MAY CONCERN

RE: DANIEL KIPKIRUI LANGAT– SBE/PHD/013/2015

The above named is a bonafide student of Moi University School of Business and Economics, undertaking a Doctor of Philosophy in Business Management degree, specializing in Marketing & Logistics.

He has completed coursework, defended his proposal, and is proceeding to the field to collect data for his research titled: *"Mobile Banking Service Quality, Customer Perceive Value, Corporate Image and Customer Retention in the Kenyan Banking Industry"*

Any assistance accorded to him will be highly appreciated.

Yours Faithfully

DEAN
School of Business and Economics
MOI UNIVERSITY

DR. JOEL K. TENAI
Ag. DEAN, SCHOOL OF BUSINESS AND ECONOMICS

Appendix II: Research Permit from NACOSTI

THIS IS TO CERTIFY THAT:
MR. DANIEL KIPKIRUI LANGAT
of MOI UNIVERSITY, 0-502 Karen, Nairobi, has been permitted to conduct research in *Nairobi County*

on the topic: *MOBILE BANKING SERVICE QUALITY, CUSTOMER PERCIEVED VALUE, CORPORATE IMAGE AND CUSTOMER RETENTION IN THE KENYAN BANKING INDUSTRY*

for the period ending:
23rd May,2020

Permit No : NACOSTI/P/19/84312/29957
Date Of Issue : 24th May,2019
Fee Recieved :Ksh 2000

....
Applicant's Signature

....
FOR: ***Director General***
National Commission for Science, Technology & Innovation

Appendix III: Letter to the Respondents

Dear Participant,

I am a PhD candidate at Moi University, Kenya. My thesis involves asking consumers about their perceptions of their experiences with the mobile banking services in Kenya. You are invited to participate in this survey. Attached is a brief questionnaire that I am requesting you to complete. It will take about 20 minutes to be filled in. Instructions to fill the questionnaire can be found on the form itself. Please be assured that that all information you provide will be kept strictly anonymous and confidential. Your name or any other identifying information will not appear on any publication.

The research is completely voluntary in nature. However, to qualify for this research, you must have been a bank customer for at least three (3) months and be at least eighteen (18) years of age. I you choose to complete the survey; it will be understood that you have consented to participate and, in the research, and to the publication of the results of the research. I will be pleased to discuss any concerns you may have about your participation, do not hesitate to contact me directly on 0721-171-939 or through this email address araplang@gmail.com

Sincerely,

Langat Daniel

School of Business and Economics,

Moi University-Kenya

Appendix IV: Research Questionnaire

SECTION A: QUALITY OF MOBILE BANKING SERVICES

Kindly indicate your opinion towards the following statements in relation to the Quality of your Bank's Mobile Banking Services

{SD} Strongly Disagree D} Disagree {NS} Not Sure {A} Agree {SA} Strongly Agree

S No.	To what extent do you agree or disagree with the following Statements?	SD	D	NS	A	SA
MSQ1	My bank's Mobile banking services are prompt hence, it takes shorter waiting time					
MSQ2	My bank's mobile banking Services saves my time					
MSQ3	My bank's mobile banking Services allows me to complete transactions quickly					
MSQ4	My bank's mobile banking service reduces the cost of my activities with the bank					
MSQ5	Information in the mobile banking application is well organized					
MSQ6	My bank's Mobile banking system is always available for use					
MSQ7	My bank's Mobile banking system operates smoothly and without delays					
MSQ8	My bank's Mobile banking system does not crash					
MSQ9	My bank notifies me whenever a bank transaction are performed					
MSQ10	My bank promptly informs about important situations (e.g. payments, balance e.g.)					
MSQ11	My bank's mobile banking Services exceeds my expectations					
MSQ12	Mobile banking related problems are quickly resolved by the bank					
MSQ13	I obtain accurate and error free service from my bank's mobile banking services					
MSQ14	I feel safe using my bank's mobile banking services					
MSQ15	Risk associated with my bank's mobile banking services is low					
MSQ16	Personal information exchanged over mobile banking services is not misused by my bank					
MSQ17	I feel secure in providing sensitive information during mobile banking transactions.					

SECTION B: CUSTOMER PERCIEVED VALUE

Kindly indicate your opinion towards the following statements in relation to the Quality of your Bank's Mobile Banking Services

{SD} Strongly Disagree {D} Disagree {NS} Not Sure {A} Agree {SA} Strongly Agree

S No.	To what extent do you agree or disagree with the following Statements?	SD	D	NS	A	SA
PCV 1	Continuous innovations to mobile banking service make me feel good					
PCV 2	I get good value from the mobile banking services for a reasonable price.					
PCV 3	I don't mind sacrificing time and efforts to access and use mobile banking services					
PCV 4	Compared with other bank's services such ATM, it is wise to choose this mobile banking services.					
PCV 5	I believe that mobile banking services are designed with customer's best interests at heart.					

SECTION C: PERCIEVED CORPORATE IMAGE

Kindly indicate your opinion towards the following statements in relation to the Quality of your Bank's Mobile Banking Services

{SD} Strongly Disagree {D} Disagree {NS} Not Sure {A} Agree {SA} Strongly Agree

S No.	To what extent do you agree or disagree with the following Statements?	SD	D	NS	A	SA
PCI 1	My bank is innovative and pioneering.					
PCI 2	My bank has a good reputation					
PCI 3	My bank has a better image than its competitors					
PCI 4	My bank does its business in an ethical way.					
PCI 5	My bank is open and responsive to consumers					
PCI 6	My bank contributes to the society					
PCI 7	In my opinion, my bank has a good image in the minds of its customers					
PCI 8	Overall, I have a good impression of my Bank					

SECTION D: CUSTOMER RETENTION

Kindly indicate your opinion towards the following statements in relation to the Quality of your Bank's Mobile Banking Services

{SD} Strongly Disagree {D} Disagree {NS} Not Sure {A} Agree {SA} Strongly Agree

S No.	To what extent do you agree or disagree with the following Statements?	SD	D	NS	A	SA
CRN 1	I intent to use my bank's mobile banking services for the foreseeable future					
CRN 2	I would recommend my bank's banking services to my relatives and friends.					
CRN 3	Given choices of other mobile banking services of other banks, I will remain as a customer to my bank					
CRN 4	I intent to increase the usage of the various mobile banking services offered by my bank					

SECTION E: BACKGROUND INFORMATION

Kindly tick appropriate box

a) Gender {} Male {} Female

b) Age {} 18-25 years {} 26-35years {} 36-45 years

{ } 46-55 years { } 56-65 years { } above 66 years

c) For how long have you been a customer of this Bank?

{} Below 1 year { } 1-5years { } 5-10 years { } above 10 years

d) What is your highest level of education?

{} Primary Certificate {} Secondary Certificate {} Diploma holder

{} Undergraduate degree {} Master's Degree { } PhD holder

e) What is your monthly income from all sources in Kenya shillings (Kshs.)

{} Less than Kshs. 9,999 {} Kshs. 10,000- Kshs.50, 000

{} Kshs. 51,000- Kshs.99, 999 {} Above Kshs. 100,000

Thank you for your participation

Appendix V: Factor Analysis Results for Mobile Service Quality

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.819
Bartlett's Test of Sphericity	Approx. Chi-Square	1722.185
	df	136
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.913	28.903	28.903	4.913	28.903	28.903	3.089	18.172	18.172
2	2.096	12.328	41.231	2.096	12.328	41.231	2.757	16.219	34.390
3	1.317	7.748	48.978	1.317	7.748	48.978	2.480	14.588	48.978
4	1.291	7.595	56.573						
5	1.011	5.948	62.521						
6	.846	4.974	67.495						
7	.781	4.593	72.088						
8	.672	3.953	76.041						
9	.645	3.792	79.833						
10	.598	3.518	83.351						
11	.544	3.199	86.550						
12	.511	3.007	89.557						
13	.421	2.476	92.034						
14	.411	2.416	94.450						
15	.367	2.158	96.608						
16	.313	1.842	98.449						
17	.264	1.551	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component		
	1	2	3
MSQ1			.765
MSQ2			.873
MSQ3			.797
MSQ4			
MSQ5			
MSQ6	.722		
MSQ7	.769		
MSQ8	.706		
MSQ9			
MSQ10			
MSQ11			
MSQ12	.594		
MSQ13	.677		
MSQ14		.731	
MSQ15		.755	
MSQ16		.626	
MSQ17		.730	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 5 iterations.

Appendix VI: Factor Analysis Results For Customer Retention, Customer Perceived Value And Perceived Corporate Image

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.788
Bartlett's Test of Sphericity	Approx. Chi-Square	2481.837
	df	136
	Sig.	.000

Total Variance Explained

Compo-nent	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulativ-e %	Total	% of Variance	Cumulativ e %	Total	% of Variance	Cumulativ -e %
1	5.935	34.909	34.909	5.935	34.909	34.909	4.087	24.044	24.044
2	1.886	11.097	46.006	1.886	11.097	46.006	2.545	14.973	39.017
3	1.254	7.378	53.384	1.254	7.378	53.384	2.442	14.367	53.384
4	.924	5.436	58.820						
5	.904	5.316	64.136						
6	.834	4.908	69.044						
7	.760	4.469	73.513						
8	.709	4.168	77.681						
9	.634	3.731	81.412						
10	.570	3.351	84.764						
11	.531	3.124	87.888						
12	.471	2.768	90.656						
13	.445	2.615	93.271						
14	.422	2.483	95.754						
15	.369	2.168	97.922						
16	.314	1.848	99.771						
17	.039	.229	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component		
	1	2	3
PCV1			.624
PCV2			.704
PCV3			.623
PCV4			.591
PCV5			.598
PCI1	.556		
PCI2	.902		
PCI3	.575		
PCI4	.703		
PCI5	.655		
PCI6	.592		
PCI7	.727		
PCI8	.693		
CRN1		.823	
CRN2		.780	
CRN3			
CRN4		.665	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 5 iterations.

Appendix VII: Correlation Analysis Results

Correlations

		Zscore(CustRet)	Zscore(MobSQual)	Zscore(CustPVal)	Zscore(CorpImage)
Zscore(CustRet)	Pearson Correlation	1	.561**	.559**	.311**
	Sig. (2-tailed)		.000	.000	.000
	N	325	325	325	325
Zscore(MobSQual)	Pearson Correlation	.561**	1	.536**	.261**
	Sig. (2-tailed)	.000		.000	.000
	N	325	325	325	325
Zscore(CustPVal)	Pearson Correlation	.559**	.536**	1	.246**
	Sig. (2-tailed)	.000	.000		.000
	N	325	325	325	325
Zscore(CorpImage)	Pearson Correlation	.311**	.261**	.246**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	325	325	325	325

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix VIII: Hierarchical Regression Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.066[a]	.004	-.011	1.00563704	.004	.276	5	319	.926
2	.563[b]	.317	.304	.83413360	.313	145.663	1	318	.000
3	.641[c]	.411	.398	.77599009	.094	50.440	1	317	.000
4	.655[d]	.429	.415	.76504343	.018	10.137	1	316	.002

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.215	.348		.618	.537
	Gender	-.001	.115	.000	-.009	.993
	Age	.036	.066	.037	.547	.585
	Experience	.001	.075	.001	.020	.984
	Education	-.066	.078	-.059	-.856	.393
	Income	-.014	.084	-.012	-.168	.867
2	(Constant)	.002	.289		.005	.996
	Gender	.003	.095	.002	.033	.974
	Age	.036	.055	.037	.667	.505
	Experience	-.035	.062	-.030	-.558	.577
	Education	.045	.065	.040	.697	.487
	Income	-.065	.070	-.056	-.926	.355
	Zscore(MobSQual)	.565	.047	.565	12.069	.000
3	(Constant)	.024	.269		.089	.929
	Gender	-.018	.089	-.009	-.199	.842
	Age	.018	.051	.019	.359	.720
	Experience	-.030	.058	-.026	-.525	.600
	Education	.058	.060	.051	.959	.338
	Income	-.069	.065	-.060	-1.060	.290
	Zscore(MobSQual)	.372	.051	.372	7.239	.000
	Zscore(CustPVal)	.363	.051	.363	7.102	.000
4	(Constant)	-.005	.265		-.020	.984
	Gender	-.029	.088	-.015	-.333	.739
	Age	.024	.050	.024	.479	.633
	Experience	-.025	.057	-.022	-.438	.662
	Education	.069	.060	.062	1.161	.246
	Income	-.079	.064	-.069	-1.233	.218
	Zscore(MobSQual)	.347	.051	.347	6.773	.000
	Zscore(CustPVal)	.342	.051	.342	6.728	.000
	Zscore(CorpImage)	.142	.045	.142	3.184	.002

a. Dependent Variable: Zscore(CustRet)

Appendix IX: Mediation Results

```
Model  : 4
    Y  : ZCustRet
    X  : ZMobSQua
    M  : ZCustPVa

Covariates:
 Gender   Age      Experience Education Income

Sample
Size:  325
*********************************************************************
OUTCOME VARIABLE:
 ZCustPVa

Model Summary
          R       R-sq      MSE        F    df1      df2          p
       .539       .290    .723     21.683   6.000    318.000    .000

Model
            coeff      se          t          p        LLCI       ULCI
constant   -.062     .295      -.210       .834      -.642       .518
ZMobSQua    .532     .048     11.141       .000       .438       .626
Gender      .057     .097       .588       .557      -.134       .249
Age         .050     .056       .897       .370      -.060       .159
Experien   -.012     .064      -.189       .850      -.137       .113
Educatio   -.035     .066      -.529       .597      -.165       .095
Income      .012     .071       .162       .872      -.129       .152
*********************************************************************
OUTCOME VARIABLE:
 ZCustRet

Model Summary
        R     R-sq     MSE        F        df1        df2          p
       .641  .411     .602    31.580      7.000    317.000       .000

Model
         coeff         se          t          p        LLCI       ULCI
constant  .024        .269       .089       .929      -.505       .554
ZMobSQua  .372        .051      7.239       .000       .271       .473
ZCustPVa  .363        .051      7.102       .000       .263       .464
Gender   -.018        .089      -.199       .842      -.192       .157
Age       .018        .051       .359       .720      -.082       .118
Experien -.030        .058      -.525       .600      -.144       .084
Educatio  .058        .060       .959       .338      -.061       .177
Income   -.069        .065     -1.060       .290      -.197       .059

******************** TOTAL EFFECT MODEL ***************************
OUTCOME VARIABLE:
 ZCustRet

Model Summary
        R    R-sq     MSE          F        df1        df2          p
       .563 .317     .696     24.611      6.000    318.000       .000

Model
         coeff         se          t          p        LLCI       ULCI
constant  .002        .289       .005       .996      -.568       .571
ZMobSQua  .565        .047     12.069       .000       .473       .658
Gender    .003        .095       .033       .974      -.185       .191
```

```
Age       .036       .055       .667       .505      -.071       .144
Experien -.035       .062      -.558       .577      -.157       .088
Educatio  .045       .065       .697       .487      -.083       .173
Income   -.065       .070      -.926       .355      -.203       .073

************ TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **********

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
       .565       .047     12.069       .000       .473       .658

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
       .372       .051      7.239       .000       .271       .473

Indirect effect(s) of X on Y:
             Effect     BootSE   BootLLCI   BootULCI
ZCustPVa       .193       .036       .127       .266

***************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95.0000

Number of bootstrap samples for percentile bootstrap confidence
intervals:
  5000

NOTE: Variables names longer than eight characters can produce
incorrect output.
      Shorter variable names are recommended.

------ END MATRIX -----
```

Appendix X: Moderation and Moderated Mediation Results

```
Model  : 59
    Y  : ZCustRet
    X  : ZMobSQua
    M  : ZCustPVa
    W  : ZCorpIma

Covariates:
 Gender   Age      Experien Educatio Income

Sample
Size:  325
**********************************************************************
OUTCOME VARIABLE:
 ZCustPVa
Model Summary
          R    R-sq    MSE       F       df1       df2          p
       .558    312    .706     17.887    8.000    316.000       .000

Model
         coeff         se          t          p       LLCI       ULCI
constant -.045       .292       -.155       .877      -.620       .529
ZMobSQua  .485       .050       9.798       .000       .388       .583
ZCorpIma  .146       .051       2.860       .005       .045       .246
Int_1    -.091       .044      -2.070       .039      -.178      -.005
Gender    .053       .096        .554       .580      -.136       .243
Age       .068       .055       1.235       .218      -.041       .178
Experien -.023       .063       -.369       .713      -.148       .101
Educatio -.030       .066       -.451       .653      -.159       .100
Income    .004       .071        .050       .960      -.135       .142
Product terms key:
 Int_1    :        ZMobSQua x        ZCorpIma

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W       .009      4.286      1.000    316.000       .039
----------
    Focal predict: ZMobSQua (X)
          Mod var: ZCorpIma (W)
Conditional effects of the focal predictor at values of the
moderator(s):

   ZCorpIma     Effect   se        t          p       LLCI       ULCI
     -1.000        .577   060   9.562       .000       .458       .695
       .000        .485  .050   9.798       .000       .388       .583
      1.000        .394  .072   5.485       .000       .253       .535

**********************************************************************
OUTCOME VARIABLE:
 ZCustRet

Model Summary
          R    R-sq     MSE       F        df1        df2          p
       .665   .443     .575     24.943   10.000    314.000       .000

Model
         coeff         se          t          p       LLCI       ULCI
constant  .041       .264        .156       .877      -.478       .561
ZMobSQua  .347       .051       6.799       .000       .247       .448
ZCustPVa  .337       .051       6.632       .000       .237       .437
```

```
ZCorpIma  .167       .047      3.565       .000       .075       .260
Int_1    -.112       .052     -2.158       .032      -.215      -.010
Int_2     .139       .051      2.704       .007       .038       .240
Gender   -.034       .087      -.386       .700      -.205       .138
Age       .025       .050       .507       .613      -.073       .124
Experien -.036       .057      -.635       .526      -.149       .076
Educatio  .060       .059      1.005       .316      -.057       .176
Income   -.071       .064     -1.117       .265      -.197       .054


Product terms key:
 Int_1    :       ZMobSQua x       ZCorpIma
 Int_2    :       ZCustPVa x       ZCorpIma

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W       .008      4.657      1.000    314.000       .032
M*W       .013      7.310      1.000    314.000       .007
----------
    Focal predict: ZMobSQua (X)
          Mod var: ZCorpIma (W)
Conditional effects of the focal predictor at values of the
moderator(s):

   ZCorpIma Effect     se          t          p       LLCI       ULCI
     -1.000  .459     071      6.505       .000       .320       .598
       .000  .347    .051      6.799       .000       .247       .448
      1.000  .235    .075      3.128       .002       .087       .383
----------
    Focal predict: ZCustPVa (M)
          Mod var: ZCorpIma (W)

Conditional effects of the focal predictor at values of the
moderator(s):

   ZCorpIma Effect      se        t          p       LLCI       ULCI
     -1.000 .198      .073     2.724       .007       .055       .341
       .000 .337      .051     6.632       .000       .237       .437
      1.000 .475      .072     6.643       .000       .335       .616
```

```
****************** DIRECT AND INDIRECT EFFECTS OF X ON Y ************

Conditional direct effect(s) of X on Y:
   ZCorpIma  Effect      se        t          p       LLCI       ULCI
     -1.000  .459     .071     6.505       .000        .320       .598
       .000  .347     .051     6.799       .000        .247       .448
      1.000  .235     .075     3.128       .002        .087       .383

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 ZMobSQua    ->    ZCustPVa    ->    ZCustRet

   ZCorpIma     Effect     BootSE   BootLLCI   BootULCI
     -1.000       .114       .050       .024       .224
       .000       .163       .036       .100       .240
      1.000       .187       .051       .100       .296
---

********************** ANALYSIS NOTES AND ERRORS *****************

Level of confidence for all confidence intervals in output:
  95.0000

Number of bootstrap samples for percentile bootstrap confidence
intervals:
  5000

W values in conditional tables are the mean and +/- SD from the mean.

NOTE: The following variables were mean centered prior to analysis:
          ZCorpIma ZMobSQua ZCustPVa

NOTE: Variables names longer than eight characters can produce
incorrect output.
      Shorter variable names are recommended.

------ END MATRIX -----
```