

Effect of Technological Innovations on Customer Loyalty among Commercial Banks in Eldoret Town

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Abstract: *The purpose of the study was investigate the effect of technological innovations on customer loyalty among commercial banks in Eldoret town, Uasin Gishu County. The study objectives were to determine the effect of mobile banking, online banking, branch networking and Electronic Fund Transfer at point of sale on customer loyalty among commercial banks.. The study was guided by Task Technology Fit (TTF) Theory. The research design adopted a descriptive survey design. The study was conducted on commercial banks within Eldoret town, Uasin Gishu County. of 483000 customers and 10 managers were captured where a sample size of 10 managers and 225 customers was drawn from the population where stratified, convenient and purposive sampling techniques were applied. The researcher used questionnaire and interview schedules as data collection instruments. The data collected in the study was analyzed by the use of descriptive statistics and inferential statistics. This includes the use of descriptive statistical methods to analyze data consisting of frequency, mean and standard deviation. The relationship between variables was done using multiple linear regression models. Tables were used to present the results. Based on the findings of the study, the study recommended among others commercial banks should regularly conduct system checks and environmental analysis ,they should embrace innovation towards the improvement of online banking services which ensures customer convenience and at the same time improving product quality, better service delivery, process improvement, efficient customer management practices which translates to effective customer satisfaction. Further they should widen their branch networking and improve the usage of financial innovations to maximize their gains and in the process improve their customer loyalty. The study suggests that that more studies should be carried on effects of branch networking on customer loyalty to develop more insight on consumers in order to help commercial banks put these factors into consideration as they develop products and also widen their branch network which rely on the internet as a key delivery platform*

Keywords: *mobile banking, online banking, branch networking, Electronic Fund Transfer and customer loyalty*

I. Introduction

1.1 Background

Technological innovation can bring forth profound, far-reaching significances in financial institution that enables organizations to be more flexible and more adaptive since most businesses are not as rigid and structured as those in developed nations. Crane (2011) state that for any bank to be successful in the future, it is very significant that it sustains a high pace of customer loyalty because it will cost an organization to acquire more new customer as compared to the cost related to the maintenance of an already existing customer. According to Rogers (1995) technological innovation is an improved process, new idea or improved service or good that has been commercialized for the production of better services and goods. According to Lovelock, Christopher & Jochen, (2011) customer loyalty is the way customers in a bank choose to use a particular product or service, rather than use other bank to purchase their products or service.

Globally, Kwashie (2012), state that technological innovation is recognized as one of the main indicators on the organizational competitive advantage as well as a crucial element in improving the loyalty of customers as well as their satisfaction and retention. Technological innovations like those existing in phone banking, smart card applications, ATMs and internet banking, are going on at a fast pace in the global banking industry. For instance, in Pakistan, the competition within the mobile market is increasing day by day (Gupta, 2008). This is because; the rapid changes in the technological innovation are the challenge for the organizations to enhance customer satisfaction and to receive their loyalty through providing them with innovative products. In Asia, technological innovation has improved whereby, the Standard Chartered in 2015, introduced talking ATMs in China, Indonesia, Korea and Indian markets to make banking services easier and inclusive for customers who are visually impaired (Frei and Kalakota, 2007). This has improved the loyalty of customer in terms of continued purchase of their services and repurchase of their products and services. Indeed, the increase in customer loyalty and performance has been observed among organizations able of using technological

innovation to differentiate their services and products and improve their processes in relation to their existing competitors (Govori, 2013).

Suiviland (2015) noted that technological innovation is making a huge difference in financial institutions in countries which are still developing like those in Asia and Africa. Further technological innovation is revolutionizing the banking industry. Suiviland (2015) further points out that, mobile banking user growth has been nothing short of phenomenal, particularly in developing nations.. Frimpong (2010) states that in Africa, telecom companies dominate the mobile-payment market, which poses a great threat to banks but they are now fighting to regain some of the turf. Kwashie (2012) conducted a study on the impact of electronic banking on service industry to clients of Ghana business financial institution, they observed that banks believe they offer higher banking offerings than non-bank customers however because forty percent of Africa's population use mobile phones and a small numbers have bank accounts and the remaining is unlikely to shift that rapidly.

In Kenya, according to Okiro and Ndungu (2013) the banking sector has continued to be dynamic and vibrant in embracing transformations due to global and local turbulences. The banks have continued to embrace the new technological innovation by replacing and upgrading their core banking systems. This is seen when there is an increase of on-line banking usage which has freed the banks employees from providing services manually hence increasing customer loyalty (Omenye, 2005). Njenga (2010) further states that gradually over the years, Kenya's banking sector has persistently raised the bar in relation to innovation and technology use. Financial institutions in Kenya have continually reinvented their service and offer delivery in an attempt to remaining relevant to the dynamic needs of their clients. This is because banks are serving a big client base that not only spans the country geographically, but also runs the range from social and economic status. Moreover, through the extension of inventive mobile banking services, micro financing and agent banking, banks have been doing much in creating opportunities for the marginalized (Njenga, 2010).

Supporting bank efforts grow (Gichuhi, 2012). The Association has undertaken major initiatives in development of banking, including the upgrading of the Payments Systems in Kenya; and the computerized Clearing House, which works with the CBK. The affiliation and the relevant financial institution of Kenya have added approximately right together with the actual Time Gross agreement device, the credit score data Sharing Initiative, the Cheque Truncation device, and the forex Centre initiatives. These groundbreaking projects are geared towards delivering significant competences across the country (Kenya Bankers Association, 2015). It is because of the rudimentary and theoretical positions that prompt this study to carried out and investigate the effect of technological innovation on customer loyalty among commercial banks in Eldoret town.

1.2 Statement of the problem

Due to various technological innovations worldwide, competition between banks has increased with the aim of attracting their customers in a myriad of ways through provision of convenient, accessible and acceptable services and products to its customers (Holden and Karsh 2010). In commercial banks in Kenya, they have embraced the use of technological innovation such and mobile banking, on-line banking, electronic fund transfer and even branch networking so as to improve the service delivery to increase the number of loyal customers in their banks.

According to Njenga (2010), poor customer service using the innovative technology available typically results in fewer customers, which translates into lower sales and profits for the bank. This technological innovation within the commercial banks are however prone to failure like the ATMs and also there is an increase of the number of frauds from individuals in the country which affects the image and loyalty of customer negatively. This leads to negative word of mouth from the customers, lowers purchasing behavior, changes customers attitude, affects the customer behavior and even causes reduction of customer repurchasing the banks products and services. Moreover, a breakdown of an ATM may result in huge costs to the firm in terms of lost transactions.

Various studies have been conducted by various authors and researchers on technological innovation on financial performance, accessibility of banking services and customer satisfaction have been conducted for instance; Aduda and Kingoo (2012) investigated the Relationship between Electronic Banking and Financial Performance among Commercial Banks in Kenya and concluded that there exists positive relationship between e-banking and bank performance. Nyamwembe (2011) conducted a study on factors hindering the adoption of technological innovation by commercial banks in Kenya and took a case study of Kenya commercial bank (KCB). The study concluded that resistance to change, internal politics and fear of cannibalizing existing products hindered adoption. It is thus out of this basis that the study sought to investigate the effects of technological innovations on customer loyalty of commercial banks.

1.3 Objectives of the study

The study purpose was establish the effect of technological innovations on customer loyalty among commercial banks in Eldoret town, Uasin Gishu County, Kenya.. The study was guided by the following specific objectives;

- i) To determine the effect of mobile banking on customer loyalty among commercial banks in Eldoret town.
- ii) To find out the effect of online banking on customer loyalty among commercial banks in Eldoret town.
- iii) To assess the effect of branch networking on customer loyalty among commercial banks in Eldoret town.
- iv) To determine the effect of Electronic Fund Transfer at point of sale on customer loyalty among commercial banks in Eldoret town.

1.4 Research Hypotheses

The study was guided by the following research hypotheses:

H₀₁ There is no significant effect of mobile banking on customer loyalty among commercial banks in Eldoret Town.

H₀₂ There is no significant effect of online banking on customer loyalty among commercial banks in Eldoret Town.

H₀₃ There is no significant effect of branch networking on customer loyalty among commercial banks in Eldoret Town.

H₀₄ There is no significant effect of Electronic Fund Transfer on customer loyalty among commercial banks in Eldoret Town.

II. Literature Review

2.1 THEORETICAL REVIEW

This section reviews the major theoretical framework applicable to the study and understanding of the effects of technological innovations on customer loyalty. The theory that guided the study was Task Technology Fit Theory proposed by Goodhue and Thompson (1995) as explained below

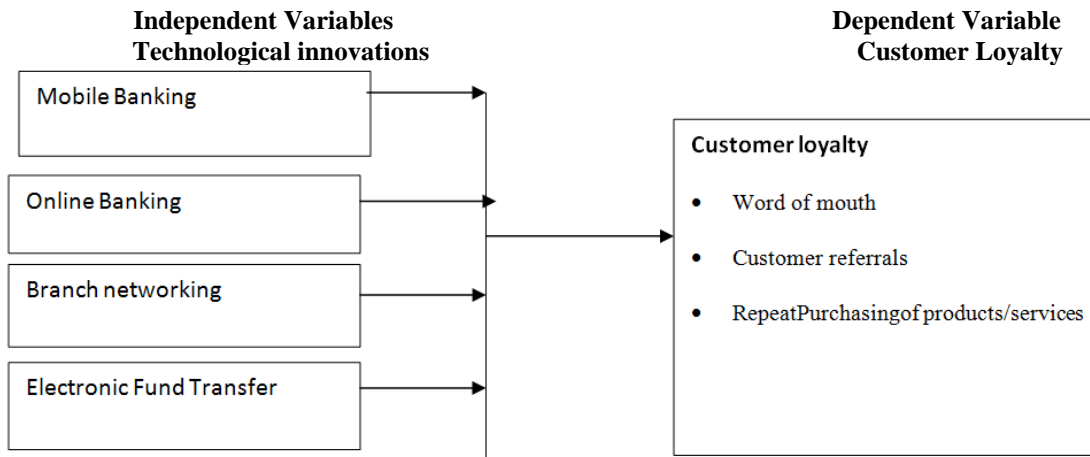
2.1.1 TASK TECHNOLOGY FIT (TTF) THEORY

Task Technology Fit (TTF) Theory was developed by Goodhue and Thompson (1995). It states that it is probable to have an affirmative influence on individual development that can be of help if the capabilities of Information Communication and Technology (ICT) match the responsibilities that the user must conform to. According to Goodhue and Thompson (1995) the factors that determine task-technology fit as; valuable, locatability, consent, and compatibility, ease of use or training, production timeliness, systems reliability and association with users. The theory is important in providing a leeway of other related theories related to information technology, this is achieved through analysis of diverse computerized systems which includes electronic commerce systems. According to the theory, the success of dependability of an information scheme is linked to the fit between task and technology, in which accomplishment is related to individual growth (Goodhue and Thompson, 1995) as well as the performance of a large assembly (Zigurs and Buckland, 1998).

A precise model of task technology fit for group support systems was developed by Zigurs and Buckland, (1998). The model was later improved and tested by Zigurs, Buckland, Connolly and Wilson, (1999), they completed the necessities of the group support systems to robust the group tasks. The task fit technology theory is shown to be relevant in mobile information systems but still has a lot of concern in its applicability (Gebauer and Shaw, 2004). The model upholds a link between commerce and information systems. It is therefore viewed important in the explanation and prediction for success of information systems (Goodhue and Thompson, 1995; Zigurs and Buckland, 1998). According to Dishaw and Strong (1999), task technology fit theory has a significant positive link with computerized systems and their growth depend on individual performance and group performance (Zigurs et al., 1999). The ideology of the theory seeks to assist in classifying aspects that can support business ideas and thus enhance the development of technological innovations (Junglas and Watson, 2006). Such developing innovations are portrayed in mobile technology which has tremendously supported the mobile workforce (Barnes, 2003). The application of the model on mobile information systems has however become clear in past studies which have mainly focused on the functionality of the technology has provided and little attention has been focused on the context in which the technology has been applied (Perry, O'Hara, Sellen, Brown, and Harper, 2001). Usability studies similarly advocate that the use-context may have a huge consequence on the circumstances of task-technology fit (Perry et al., 2001). According to Gebauer and Ginsburg, Turel, (2006), non-functional characteristics are first observed, these include weight, size and play, and they are seen as the most vital role in a mobile than in a non-mobile scenario. Then, as commercial tasks are done separately in both mobile and non-mobile cases, important features may shift (Gebauer and Shaw 2004; Perry et al., 2001; Zheng and Yuan, 2007). It is for that reason that it is necessary remarkable business changes and associated technology necessities, for the accessibility and applicability of task-technology fit model and to carefully determine the needs for theory adjustment and build up (Junglas and Watson, 2006; Lyytinen and Yoo, 2002).

2.2 conceptual Framework

Kombo and Tromp, (2009), defines conceptual framework as a set of wide-ranging ideologies adopted from relevant areas of enquiry and used to organize a subsequent presentation. In this study, the conceptual framework between bank technological innovations and customer loyalty in Commercial Banks is as presented below.



Source; Researcher (2016)

1.4 Empirical Review

2.3.1 Technological innovation

Innovations has been explained as ideas that are completely new for a bank, or innovation that is radical meaning the ideas concern a world novelty (Hall et al, 2009). Technological innovation is, presently, renowned as one of the main factors on the competitive advantage of the firm's as well as a crucial element in enhancing the financial and economic results of firms. Indeed, increased financial and economic performance has been observed among banks capable of employing innovation to differentiate their services and products and improve their processes in association to their competitors. Commercial banks are examples of institutions that have been successful due to its introduction and opening of technologically improved services to its esteemed customer and continue to grow and expand its customer base as a result of opening customer oriented business portfolios that vary and which are a product of research that is thorough as far as customer needs are concerned and significance of technological innovations. Technology introduction in a service can be both detrimental and beneficial (Mick & Fournier, 2008). Forcing customers to use difficult technology that do not improve the exchange process may lead to hostile customers and affects loyalty. It is therefore important that a balance between the operational benefits and gains of the technologies be used to ease service provision with perception behaviour of the customer (Walker & Craig 2012) by assessing the most commonly accepted, efficient and effective use of technology in accordance to customer perception. According to Trott (2005), technological innovation when employed in today's banking environment fall into three definite categories which are customer independent where technology involves a customer completing and conducting a transaction with a bank wholly independent of any human contact with the institution like ATMs, phone banking and Internet banking. The customer assisted is where a bank employee will employ customer-assisted technology as a resource to finish a transaction like the call center's customer service officers will use a Customer Relationship management (CRM) machine to apprehend a customer's profile and offer on the spot responses to clients' queries at the banking transactions and updated billings (East, 2007). The client obvious is customer generation which represents the actual core of financial institution operations and clients in no way see it however assume it.

2.1.2 Customer Loyalty

The concept of customer loyalty has long been observed by practitioners and marketing academics as an important instrument for expanding a marketing strategy which is effective to financial institutions. According to Oliver, (1999) customer loyalty is a customer's continued commitment to a product, service or a brand offered in a particular organization. Lam, Shankar and Murthy (2004) on the other hand notes that it is a commitment that is deeply held by consumers to purchase product overtime despite the situational influences that are encountered in the prevailing market that provides specific information regarding a specific service or product encounter, cumulative satisfaction resulting from a series of transactions or service encounter is a more fundamental element of a firm's past, current and future performance (Zins, 2001). While one would assume new customers would reflect the achievement of a business, it is returning customers that best demonstrate success. Business growth is measured in profits; therefore returning customers are far less expensive to maintain

than nurturing new ones (Hoyt and Howell, 2011). Kahora (2012) further described customer loyalty as something that consumer's exhibit towards brands, services, stores, and product categories (Kahora, 2012). Munene (2010) argued that loyalty occurs when the customer feels that the firm and its products and services can best meet his/her relevant needs those competitors are virtually excluded from the set goals and includes the tendency to choose one business or a product over another. According to De Ruyter et al (2008), loyalty behaviours include increasing the scale of relationship, increasing the scope of relationship, Word of Mouth (WOM) recommendation, continuing to purchase services from the same financial institution and increased purchase frequency. Customer loyalty is measured using two dimensions which are attitudinal loyalty and behavioral loyalty suggested by Baloglu, (2002), (Chiou and Droge, 2006), (Yang and Peterson, 2004), (Curran and Meuter, 2005) and (Luarn and Lin, 2003) to determine Customer loyalty.

Attitudinal loyalty is a situation whereby various feelings create an individual's general attachment to a service, organization or product (Curran and Meuter, 2005). These customer feelings describe the individual's cognitive extent of loyalty (Hallowell, 2006). The dimension of behavioural reflects the extent to which attitudinal feelings are interpreted into loyalty behaviour. The behavioral repurchase dimension of customer loyalty involves repeated purchase of product whereas attitudinal loyalty refers to favorable attitude and attitudinal commitment toward a product leading in repeat purchasing behavior. It is a biased purchase response hence leading from an attitude that is evaluative favoring the purchase. According to Zeithaml et al (2006) these loyalty results include less switching behavior, actions and intentions, repurchase, word of mouth which are positively recommended, service providers identification through restricted affiliation, production by customers, social benefits inform of friendship, customer citizenship behavior, willingness to pay a first-rate price for a given service, mentoring other customers who are less experienced by assisting them to be aware of implicitly and explicitly which are stated in the rules of conduct (Zeithaml et al., 2006).

2.2.1 Mobile Banking and Customer Loyalty

According to Groenfeld (2014), mobile technology and financial applications are changing the way customers, banks and sellers interact. According to Aosa (1998), both digital phones and tablets have shown great s as tools of business, and the bank services industry has been able to recognize the significance of leveraging mobile devices from a business perspective. There are many mobile banking applications existing today. Retail banking and brokerage firms such as Bank of America and Fidelity Investments have used mobile platforms to offer applications that let customers remain updated on events, check out on their portfolio holdings, and even initiate transactions from their mobile devices. Investment management firms have utilized the rise of tablet devices as an opportunity to furnish their sales forces with updated documentation quickly.

Aosa (1998) further argues that the convergence of mobile and financial industry. There are several trends that are encouraging the convergence of the mobile and the financial industry. Moving towards Digital Wallet, an initiative that lets users to have digital money in their mobile device or in the cloud (Black, Lockett, Winklhofer, and Ennew, 2001). Another trend investigated by Daniel (1999) comes from mobile banking, which is gaining foundation throughout the world. Today, many banks permit customers to utilize mobile devices when checking restrained facts associated with their banking but this is truly changing with the increasing purchaser demand, infinite launch of new cellular devices and provision of safe & secure transactions. Groenfeld (2014) also points out that, today, over one-third of American adults own a Smartphone of some kind.

As many financial industries receive the awareness for requirement of mobility solutions, there are new opportunities, for both banks and consumers. Smartphones are changing financial lifestyles around the world get paid, make payments, send money to family, research agricultural or fish prices before taking their items to nearby markets, determine where to put their savings, examine economic services vendors, control their budgets and save for the destiny mobile banking's tremendous development challenges traditional banking with a reduction of income, information loss about the turnover of their customers as well as lower margins as competition between those with expensive branch networks compete and all-electronic providers with few overheads continue to grow. Mobile payment is a very fluid business.

2.2.2 Online Banking and Customer Loyalty

According to Scot (2014), online banking provides consumers with expedient technique of conducting bank business from the comfort and security of their personal computer at their own homes. This means that consumers can check account balances and review other account information any time of the day or night. Online banking has totally changed the face of transactional business and has affected commerce across various trades and industries. Online banking can be performed 24 hours a day, 7 days a week. The Consumers with ease of Internet access can easily log in to their bank website at any time of the day and perform any number of banking transactions (Essinger, 1999). According to Frei and Kalakota (1998), unlimited access enables the consumers with the convenience conducting commerce on weekends and holidays when banks are

conventionally closed. While most institutions have security measures put to avert a breach in online security, there are still some predators that have stylish techniques to interrupt transaction submissions and steal customer's bank information. Identity thieves obtain personal information through some techniques.

According to the Federal Trade Commission, phishing is when a thief pretends to be company and sends spam or pop-up messages to entice you to reveal your personal information. The increase in online banking activity has earned the eye of institutions out of doors of the traditional banking enterprise. A spread of monetary institutions provide banking offerings like prepaid credit playing cards, pay-day loans, commercial enterprise loans and check cashing offerings to clients at a charge. on-line services just like those supplied at banks are also available to customers. offerings furnished through those economic institutions are not situation to the equal authorities rules as conventional banks and credit rating unions.

2.2.3 Bank Branch Networking and Customer Loyalty

Geoffrey (2015) discusses branch networking among banks by showing that online banking, has become the custom for simple bank transactions to some degree. The easier it is for consumers to check their accounts, or pay their bills and move money from one account to the other, the more likely they are to clearly do these items and keep a extra prepared financial lifestyles. , the more likely they are to clearly do these items and keep a extra prepared financial lifestyles. However, it's important to note that although online banking is a good addition and development, it does not mean that direct internet banking is a substitute to their brick-and-mortar peers in all cases. We'll take a look at what internet banks have to offer - and where they may fall short (Frei and Kalakota, 1998). Frei and Kalakota, (1998) further note that, as commercialization of the net developed in the early Nineteen Nineties, traditional brick-and-mortar banks commenced to research methods of delivering confined online offerings to lessen operating costs.

The success of the early efforts caused many banks to expand their internet presence with enhanced websites that featured the ability to download forms and process loan applications. Security First Network Bank secured by FDIC became the first fully-functional direct bank insured by the FDIC. Based in Atlanta, it began operations on October 18, 1995. Govori (2013) asserts that the bottom line of the internet related banking is arguing that both online and brick-and-mortar banks offer distinctive benefits and shortcomings, it may be unwise to do banking exclusively with either option. While it's impossible for everyone, the best play may be to split banking between each in-keep and on-line offerings and revel in the conveniences and savings of internet banks whilst preserving the customer support and personal relationships a physical department can provide (Essinger, 1999).

2.2.4 Electronic Funds Transfer and Customer Loyalty

The federal commission of trade (2014) discusses the law involving to the automated funds transfer as the automated banking, additionally called digital fund switch (EFT), makes use of pc and digital technology in region of tests and different paper transactions. EFTs can allow customer accessibility to an account very easy instigated through devices like cards or codes. Most financial institutions use ATM or debit cards and Personal Identification Numbers (PINs) for this purpose. The use of radio frequency identification (RFID) or other forms of "contactless" technology that scan customer information without being in direct contact with the customer. The federal Electronic Fund Transfer Act (EFT Act) covers some electronic consumer transactions (Essinger, 1999). ATMs are electronic terminals that allow customers to bank almost virtually at any time. To make cash withdrawals, or make deposits, or transfer funds between accounts, the customers normally inserts an ATM card and enter the PIN. Some financial institutions and ATM owners charge a fee, most especially if a customer doesn't have accounts with them or if the transactions take place at far-off location. ATMs must generally tell the customer they charge a fee and the amount at the terminal screen before the transaction is complete.

It is important for a consumer to check with the institution and at ATMs they use for more information about these charges. It also denotes that, direct Deposit lets customers authorize specific deposits like paychecks, Social Security checks, and other benefits to the customer's account on a regular basis. Recurring bills can also be paid automatically by pre- authorizing direct withdrawals (Chandler, 1962). Such bills include; insurance premiums, mortgages, utility bills, and gym memberships. Being careful is important before customers pre-authorize recurring withdrawals to pay unfamiliar companies; funds from the bank account could be withdrawn improperly it is hence prudent that customers monitor customer's bank account to make sure direct recurring payments take place and are for the right amount.

The commission also points out that Pay-by-Phone Systems can allow one to call the financial institution instructing payment of sure payments or to transfer finances among accounts. There need to be an agreement with the customer's institution enabling such transfers. non-public pc Banking permits customers to address many banking transactions the use of the personal computer (Campbell and Goodstein, 2001). For instance, customers may use computer to request transfers between accounts and pay bills electronically. The commission further posits that, Debit Card Purchase or Payment Transactions let customers purchase or make

payments with a debit card, which also may be customer’s ATM card. Transactions then can take place in-person, online, or by phone (Andrews, 1971).

III. Research Methodology

3.1 Research Design

The present research employed a descriptive survey design. Orodho (2003) and Kothari (2004) describe a descriptive survey design as a design that seeks to portray precisely the characteristics of groups that are the managers and customers.

3.2 Target Population

For the purpose of this study, the researcher targeted a population of 483000 customers in all the selected banks in Eldoret town which have adopted technological innovations in their operations. The study collected data from these banks in respect of use of technology innovations in banking and customer loyalty.

3.3 Sample Size and Sampling Procedures

3.3.1 Sample Size

This study used Nassiuma (2000) formulae cited by Kamau (2013). The formula was used to determine the total sample size from the population of 483000 customers, using the co-efficient of variation for estimating a sample size.

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

Where

n = Sample size

N =Population, 483000 in this case

C =co-efficient of variation assumed to be 0.3 percent for survey research

e = standard error, assumed to be 0.02 in this case

On substitution,

$$n = \frac{483000 \times 0.3 \times 0.3}{0.3 \times 0.3 + (483000-1) 0.02 \times 0.02}$$

$$n = \frac{43470}{193.2896}$$

$$n = 225$$

The minimum sample size required is 225 customers

3.3.2 Sampling Procedure

Cohen &Manion (2014) observes that factors of expense, time and accessibility make it not possible to obtain information from the whole target population. The essential requirement of any sample is that it must be a representative of the whole population. Stratified, convenient and purposive sampling techniques was adopted in the study as the appropriate sampling procedures due to the nature of information needed and distribution of respondents in the study, (Creswell, 2008). The study used stratified sampling technique to group the customers into stratas. Stratified random sampling was appropriate because it involved selecting customers in such a way that the existing subgroups in the population are more or less reproduced in the sample. Purposive sampling technique was more appropriate to the population of managers under study since it was simple and realistic and as the customers could not be divided into strata very easily. Convenience sampling was appropriate too to customers since they were picked as they entered the bank. A sample size of 10 managers and 225customers was selected for the purpose of this study. Table 1 shows the sample frame of the study.

Table 1 Sample Frame

Bank name	Number of Managers	Customers	Procedure	Sample size for Customers
Equity	2	115000	115000/483000 × 225	55
Standard	1	73000	73000/483000 × 225	34
Barclays	1	80000	80000/483000 × 225	37
Kenya commercial bank	2	101000	101000/483000 × 225	47
National	1	13000	13000/483000 × 225	6
Cooperative bank	2	96000	96000/483000 × 225	44
Family bank	1	5000	5000/483000 × 225	2
Total	10	483000		225

Source: Author, 2016

3.4 Research Instruments

Questionnaire and interview schedules were adopted in this study. This enabled the researcher to collect primary data from the targeted respondents.

3.5 Data Analysis and Presentation

Completed questionnaires was checked for completeness and coded Descriptive statistics (Frequencies, means and standard deviation) was used to summarize the data Pearson product moment correlation was used to check for significant correlation between use of innovation technologies (mobile banking, online banking, branch networking, electronic funds transfer) and customer loyalty. In addition, the researcher conducted a multiple regression analysis so as to determine the extent to which innovation technologies affect customer loyalty in commercial banks.

The following model was used:

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

Whereby Y = customer loyalty

X₁ = mobile banking

X₂ = online banking

X₃ = branch networking

X₄ = Electronic funds transfer

Results were considered significant at 95% confidence level. Findings were presented in the form of tables. The analyzed data was presented in the form of tabulations (percentages, mean and standard deviation),

IV. Data Analysis, Findings And Interpretation

From the study the study used descriptive statistical methods to analyze data consisting of frequency, percentages, mean and standard deviation. The means were analyzed on a five (5) point Likert scale (where 1= strongly disagree 2= disagree, 3= neutral, 4= agree and 5= strongly agree). The scores of ‘strongly disagree’ and ‘disagree have been taken to represent a statement, response of which is to no extent, equivalent to mean score of 0 to 2.5. The score of ‘neutral’ has been taken to represent a statement response of which is to a moderate extent, equivalent to a mean score of 2.6 to 3.4. The score of ‘agree’ and ‘strongly agree’ have been taken to represent a statement response of which is to a great extent equivalent to a mean score of 3.5 to 5.

4.1. Mobile Banking and Customer Loyalty

The researcher sought todetermine the effect of mobile banking on customer loyalty among commercial banks in Eldoret town. This helped to establish the extent to which commercial banks are practicing the use of mobile banking. The range 1=strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=strongly agree. The scores of Strongly Disagree/Disagree presents a variable with a mean score of 0 to 2.5 on the continuous Likert scale. On the other hand scores of 2.5 to 3.5 represented moderate extent and mean scores of 3.5 to 4.8 on the continuous Likert was taken to be agree and strongly agree. The responses presented and summarized in the table 4.1 below.

Table 4.1 Mobile Banking and Customer Loyalty

Mobile Banking and Customer Loyalty	N	M	SD
Mobile banking services are more efficient, hence improved quality of services which maintains customer loyalty	192	3.99	1.056
Mobile banking is more secure, therefore increased customer confidence which enhances customer loyalty	192	4.15	.995
Mobile banking is comfortable and flexible to use	192	4.16	1.098
There is increased level of economic activities by the use of mobile banking	192	3.84	1.249
I would feel secure sending sensitive bank information across mobile banking	192	4.01	1.026
I can make transactions in wherever I am	192	3.87	1.234

The findings on table 4.1 above show that Mobile banking services are more efficient, hence improved quality of services which maintains customer loyalty (M= 3.99, S.D=1.056), Mobile banking is more secure, therefore increased customer confidence which enhances customer loyalty (M=4.15, S.D=0.995) when asked whether Mobile banking is comfortable and flexible to use the results were (M=4.16, S.D=1.098), further on whether there is increased level of economic activities by the use of mobile banking the results were (M=43.84, S.D=1.249), also on if the customers would feel secure sending sensitive bank information across mobile banking the results were (M=4.01, S.D=1.026) and lastly when asked whether customers could can make transactions in wherever they are the results were (M=3.87, S.D=1.234) This implies that majority of the respondents agreed that mobile banking is efficient in ensuring customer loyalty as majority of the responses lied between a mean scores of 3.5 to 4.8 on the continuous Likert These findings correspond that of Groenfeld

(2014) who indicated that financial industries receive the awareness for requirement of mobility solutions, there are new opportunities, for both banks and consumers. Smartphones are changing financial lifestyles around the world get paid, make payments, send money to family, research agricultural or fish prices before taking their goods to nearby markets, decide where to put their savings, compare financial services providers, manage their budgets and save for the future. Mobile banking’s tremendous development challenges traditional banking with a reduction of income, information loss about the turnover of their customers as well as lower margins as competition between those with expensive branch networks compete and all-electronic providers with few overheads continue to grow.

Further Adam, (2011) noted that, apps include movent which links a debit card to a mobile so clients can track those small expenses that can add up, pay friends, transfer funds and plan savings. Because loans can now be obtained through the smartphone, it has led to reduction or elimination of paperwork and this is evident in banks in Korea.

4.2. Online Banking and Customer Loyalty

The researcher sought to find out the effect of online banking on customer loyalty among commercial banks in Eldoret town. The range was 1=strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=strongly agree. The scores of Strongly Disagree/Disagree have been taken to present a variable which had a mean score of 0 to 2.5 on the continuous Likert scale. On the other hand scores of 2.5 to 3.5 represented moderate extent and mean scores of 3.5 to 4.8 on the continuous Likert was taken to be agree and strongly agree. The responses presented and summarized in the table 4.2 below.

Table 4.2 Online Banking and Customer Loyalty

Online Banking and Customer Loyalty	N	M	SD
The online banking of commercial banks is safe and secure	192	3.66	1.398
The online website of commercial bank gives sufficient promises to its customers	192	3.77	1.191
It is easy to complete a transaction through online banking	192	4.09	.993
There is a lot of customer support in the banks’ online website	192	3.90	1.118

From the descriptive statistics table 4.2 above, most of the respondents strongly agreed that the online banking of commercial banks is safe and secure having a mean of 3.66 and a standard deviation of 1.398. The respondents also agreed that the online website of commercial bank gives sufficient promises to its customers with a mean of 3.77 and standard deviation of 1.191 on their responses. Respondents were in agreement with a mean of 4.09 and a standard deviation of 0.993 that it is easy to complete a transaction through online banking lastly the respondent agreed that there is a lot of customer support in the banks’ online website with a mean of 3.90 and standard deviation of 1.118. This implied that most of the respondents agreed that they online banking since their responses were between mean scores of 3.5 and 4.8 on the continuous Likert scale.

These findings are consistent to that of Scot (2014), who indicated that online banking provides consumers with expedient technique of conducting bank business from the comfort and security of their personal computer at their own homes. This means that consumers can check account balances and review other account information any time of the day or night. Online banking has totally changed the face of transactional business and has affected commerce across various trades and industries. Frei and Kalakota (1998) also indicated that unlimited access enables the consumers with the convenience conducting commerce on weekends and holidays when banks are conventionally closed.

4.3. Bank Branch Networking and Customer Loyalty

The researcher sought to assess the effect of branch networking on customer loyalty among commercial banks in Eldoret town. The range was 1=strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=strongly agree. The scores of Strongly Disagree/Disagree have been taken to present a variable which had a mean score of 0 to 2.5 on the continuous Likert scale. On the other hand scores of 2.5 to 3.5 represented moderate extent and mean scores of 3.5 to 4.8 on the continuous Likert was taken to be agree and strongly agree. The responses presented and summarized in the table 4.3 below.

Table 4.3 Bank Branch Networking and Customer Loyalty

Bank Branch Networking and Customer Loyalty	N	M	SD
Accessibility in distance	192	4.28	.966
Accessibility of funds anywhere branch is located	192	4.06	1.078
Saves time and transportation cost	192	3.78	1.325
Spacious banking halls	192	3.90	1.181
Customer complains receives swift response	192	4.23	.995
The level of branch networking in our area is still low	192	4.08	1.043

From the descriptive statistics table 4.3 above most of the respondents strongly agreed that the branch networking is affected by accessibility in distance having a mean of 4.28 and a standard deviation of 0.966. The respondents also agreed that customers are able to access their funds anywhere branch is located with a mean of 4.06 and standard deviation of 1.078 on their responses. Respondents were in agreement with a mean of 3.78 and a standard deviation of 1.325 that Saves time and transportation cost, the respondent also agreed that there is a lot of Spacious banking halls with a mean of 3.90 and standard deviation of 1.181, further the respondents agreed that through branch networking customer complains receives swift response with a mean of 4.23 and a standard deviation of 0.995, Lastly the respondents agreed that The level of branch networking in our area is still low with a mean of 4.08 and a standard deviation of 1.043 . This implied that most of the respondents agreed that they online banking since their responses were between mean scores of 3.5 and 4.8 on the continuous Likert scale.

Similarly, Geoffrey (2015) observed that branch networking among banks by has become the custom for simple bank transactions to some degree. The easier it is for consumers to check their accounts, or pay their bills and move money from one account to the other, the more likely they are to actually do these things and maintain a more organized financial life. However, it's important to note that although online banking is a good addition and development, it does not mean that direct internet banking is a substitute to their brick-and-mortar peers in all cases.

Further Govori (2013) asserts that the lowest line of the net associated banking is arguing that the upward push of internet banks has increased the competition for the banking business. With both on-line and brick-and-mortar banks provide different blessings and shortcomings, it could be unwise to do banking completely with either alternative. even as it's impossible for anyone, the exceptional play may be to break up banking among each in-save and online offerings and experience the conveniences and savings of internet banks at the same time as retaining the customer service and private relationships a bodily department can offer

4.4. Electronic Fund Transfer and Customer Loyalty

The researcher sought to assess the effect of electronic fund transfer on customer loyalty among commercial banks in Eldoret town. The range was 1=strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=strongly agree. The scores of Strongly Disagree/Disagree have been taken to present a variable which had a mean score of 0 to 2.5 on the continuous Likert scale. On the other hand scores of 2.5 to 3.5 represented moderate extent and mean scores of 3.5 to 4.8 on the continuous Likert was taken to be agree and strongly agree. The responses presented and summarized in the table 4.4 below.

Table 4.4 Electronic Fund Transfer and Customer Loyalty

EFT and Customer Loyalty	N	M	SD
Using electronic fund transfer saves time	192	3.76	1.387
I find the electronic banking transfer useful	192	4.08	1.072
The service allows me to accomplish my banking activities more quickly	192	4.40	.842
Electronic banking transfer services have improved my performance in my daily activities.	192	4.18	.965
I intend to use electronic banking transfer services whenever available	192	3.73	1.444
electronic banking transfer would be easy for me to use	192	4.02	1.136
Using electronic banking transfer services extremely easy	192	4.32	.877

From the descriptive statistics table 4.4 above most of the respondents agreed that using electronic fund transfer saves time having a mean of 3.76 and a standard deviation of 1.387. The respondents also agreed that electronic banking transfer is useful with a mean of 4.08 and standard deviation of 1.072 on their responses. Respondents were in agreement with a mean of 4.40 and a standard deviation of 0.842 that the service allows them to accomplish his/her banking activities more quickly, further the respondents agreed that Electronic banking transfer services have improved my performance in my daily activities with a mean of 4.18 and a standard deviation of 0.965, the respondents also indicated that intend to use electronic banking transfer services whenever available with a mean of 3.73 and a standard deviation of 1.444, again they agreed that v with a mean of 4.02 and standard deviation of 1.136 Lastly the respondents agreed that Using electronic banking transfer services extremely easy with a mean of 4.32 and a standard deviation of 0.877. This implied that most of the respondents agreed that they online banking since their responses were between mean scores of 3.5 and 4.8 on the continuous Likert scale.

These findings concurs to that of Holden & Karsh (2010), who indicated that not all electronic fund transferrable are covered by the EFT Act. For example, some monetary establishments and traders difficulty playing cards with cash fee saved electronically on the cardboard itself. Examples consist of prepaid telephone playing cards, mass transit passes, widespread reason reloadable cards, and some present cards. Those "saved-price" playing cards, in addition to transactions using them, might not be blanketed with the aid of the EFT Act, or they'll be problem to one of kind rules under the EFT Act. This means customers may not be protected for the

loss or misuse of the cardboard. Ask approximately the monetary organization or service provider about any protections presented for those playing cards. Maboe (2009), separate rules apply differently to deposit accounts from which pre-authorized transfers are drawn. In this regard transfers from customers account which have been pre-authorized requires written authorization and a copy of that authorization must be given to the consumer. Maboe (2009) further notes that contracts allocated in the banking institutions should contain more information on pre-authorized transfers

4.5. Customer Loyalty

The researcher sought to assess the effect of technological innovations on customer loyalty among commercial banks in Eldoret town. The range was 1=strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=strongly agree. The scores of Strongly Disagree/Disagree have been taken to present a variable which had a mean score of 0 to 2.5 on the continuous Likert scale. On the other hand scores of 2.5 to 3.5 represented moderate extent and mean scores of 3.5 to 4.8 on the continuous Likert was taken to be agree and strongly agree. The responses presented and summarized in the table 4.5 below.

Table 4.5 Customer Loyalty

Customer Loyalty	N	M	SD
There is high rate of Word of Mouth recommendations	192	3.79	1.410
Customer attitude has encouraged increased repurchase of products and services	192	4.02	1.148
There is continuous repeat Purchasing of products/services from customers	192	4.27	.920
There is less switching behaviour, intentions and actions	192	4.05	1.072

On the effects of technological innovations on customer loyalty the study findings indicated that majority of the respondents agreed that There is high rate of Word of Mouth recommendations with a mean of 3.79 and a standard deviation of 1.410, they also agreed that customer attitude has encouraged increased repurchase of products and services with a mean of 4.02 and standard deviation of 1.148, further the respondent agreed that there is continuous repeat Purchasing of products/services from customers with a mean of 4.27 and a standard deviation of 0.920 and lastly the respondents agreed that there is less switching behaviour, intentions and actions with the introduction of technological innovations this had a mean of 4.05 and a standard deviation of 1.072. This implies that important instrument for expanding a marketing strategy which is effective to financial institutions

This finding is consistent to other findings such as by Oliver, (1999) who indicated that customer loyalty is a customer's continued commitment to a product, service or a brand offered in a particular organization. Lam, Shankar and Murthy (2004) noted that it is a commitment that is deeply held by consumers to purchase product overtime despite the situational influences that are encountered in the prevailing market that provides specific information regarding a specific service or product encounter, cumulative satisfaction resulting from a series of transactions or service encounter is a more fundamental element of a firm's past, current and future performance. Losing a customer can occur when he/she ceases or reduces re-buying, which leads to a decline in sales volume. Further Munene (2010) argued that loyalty occurs when the customer feels that the firm and its products and services can best meet his/her relevant needs those competitors are virtually excluded from the set goals and includes the tendency to choose one business or a product over another

4.6 Discussion of Interview schedule.

From the interview schedule the branch managers of commercial banks in Eldoret town were asked to give their views on how mobile banking affects customer loyalty, majority of them stated that mobile technology and financial applications are changing the way customers, banks and sellers interact, Mobile banking services are more efficient, hence improved quality of services which maintains customer loyalty, Mobile banking is more secure, therefore increased customer confidence which enhances customer loyalty, it is comfortable and flexible to use, it is increased level of economic activities by the use of mobile banking, organizations also feel secure sending sensitive bank information across mobile banking. Also one of the managers Mr Kotut stated that "There are a several trends that are encouraging the convergence of the mobile and the financial industry. Moving towards Digital Wallet, an initiative that lets users to have digital money in their mobile device or in the cloud" Mr Kenei added that "many banks permit customers to utilize mobile devices when checking limited information related to their banking but this is definitely changing with the increasing consumer demand, endless release of new mobile devices and provision of safe & secure transactions. Mr Nganga concluded by stating that, "mobile services facilitate customers to check the stability and transactions of their money owed, pay invoices and transfer funds among debts, and affirm the direct payment through the phone's micro browser"

When asked whether online banking affect customer loyalty,, majority of the managers agreed, one of the managers Mrs Wambua stated that “Banks have used electronic channels for years to communicate and transact business with both domestic and international company customers” Mr Kennedy also stated that “online banking provides consumers with expedient technique of conducting bank business from the comfort and security of their personal computer at their own homes.” lastly Mr. Ayodi stated that “While most banks have security measures put to avert a breach in online security, there are still some predators that have stylish techniques to interrupt transaction submissions and steal customer’s bank information. Identified thieves obtain personal information through some techniques making customers to shy away from the services”

On the effects of branch networking on customer loyalty the branch managers agreed that by increasing the branch network of their banks customers accessibility to the banks are made easier but not as much as online and mobile banking does, one of the managers stated that “Mobile and internet banking have become substituted to the physical banking system where customers wait in long queues in the banks”

Lastly when the branch managers was asked to give their views on how Electronic Fund Transfer at point of sale affect customer loyalty, Majority of them agreed that Electronic funds transfers have become one of the more common financial transactions, Mrs. Murunga stated that” through the use of EFT exchanging money has also become faster and more efficient because of EFTs. Because of this fact, purchasing and payments have been streamlined and easier to track” Mr Odhiambo stated that “EFTs has increased the speed at which money is passed between parties. Where transactions previously took days to complete, they now can be completed in minutes” Mr. Kotut complimented supported Mr. Odhiambo by stating that “Electronic Fund Transfer transactions have also significantly reduced the need to handle physical currency. The accuracy of transaction amounts has also increased because there is a reduced need to rely on handwritten or hand-counted transactions”

4.7. Inferential Statistics

Factor analysis was conducted to reduce the independent variables in the regression model to a smaller set of uncorrelated factor scores, also Pearson product moment correlation was used to check for significant correlation between use of innovation technologies (mobile banking, online banking, branch networking, electronic funds transfer) and customer loyalty. In addition, the researcher will conduct a multiple regression analysis so as to determine the extent to which innovation technologies affect customer loyalty in commercial banks.

4.7.1. Factor Analysis

Factor analysis was conducted to reduce the independent variables in the regression model to a smaller set of uncorrelated factor scores at the same time to indicate the direction and strength of the relationship for each variable. Factor analysis was done on mobile **banking**, online banking, branch networking and EFT

4.7.1.1 Factor Analysis Results of mobile banking

From the study results show that the 6 items for mobile banking were sorted and clustered into the Kaiser-Meyer-Olkin (KMO) and Barlett’s Test of Sphericity. The KMO value was 0.453 indicating that the study variables were good enough for analysis. The Barlett’s Test of Sphericity was significant $X^2=1193.095$, $df = 15$, $p=0.000$, implying that the factor analysis of the study was appropriate, therefore indicating the relationship among variables. The results are presented in Table 4.6

Table 4.6 KMO and Bartlett's Test of mobile **banking**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.453
Bartlett's Test of Sphericity	Approx. Chi-Square	1193.095
	Df	15
	Sig.	.000

4.7.1.2 Factor Analysis Results of online banking

From the study results shown in table 4.9, the 4 constructsof independent variable online banking were sorted and clustered into the Kaiser-Meyer-Olkin (KMO) and Barlett’s Test of Sphericity. The KMO value was $KMO=0.549$ indicating that the study variables were good enough for analysis. The Barlett’s Test of Sphericity was significant $X^2=159.099$, $df = 6$, $p=0.000$, implying that there is an existence of a relationship among variables. The results are presented in Table 4.7

Table 4.7 KMO and Bartlett's Test KMO and Bartlett's Test of online banking

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.549
Bartlett's Test of Sphericity	Approx. Chi-Square	159.099
	Df	6
	Sig.	.000

4.7.1.3 Factor Analysis Results of branch networking

Further the Kaiser-Meyer-Olkin (KMO) measure was used to determine the factors to be extracted for analysis from the independent variable branch networking. The KMO value was $KMO=0.543$ showing that the constructs were adequate for analysis. The Barlett’s Test of Sphericity was significant. $X^2=715.698$, $df=15$, $p=0.000$, implying that there was relationship among variables for branch networking. The results are shown in Table 4.8,

Table 4.8 KMO and Bartlett's Test of branch networking

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.543
Bartlett's Test of Sphericity	Approx. Chi-Square	715.698
	Df	15
	Sig.	.000

4.7.1.4 Factor Analysis Results of EFT

Further the results show that the 8 items for electronic funds transfer are sorted and clustered into the Kaiser-Meyer-Olkin (KMO) and Barlett’s Test of Sphericity. The KMO value was $KMO=0.596$, indicating that the study variables were good enough for analysis. The Barlett’s Test of Sphericity was significant $X^2=219.656$, $df=28$, $p<0.000$, implying that there was relationship among variables for electronic fund transfer. The results are shown in table 4.9

Table 4.9 KMO and Bartlett's Test of EFT

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.596
Bartlett's Test of Sphericity	Approx. Chi-Square	219.656
	Df	28
	Sig.	.000

4.7.1.5 Factor Analysis Results of customer loyalty

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett’s Test of Sphericity were used to reduce the customer loyalty variables in the regression model to a smaller set of uncorrelated factor scores at the same time to indicate the direction and strength of the relationship for each variable. The KMO value was 0.541 indicating that the study variables were good enough for analysis. The Barlett’s Test of Sphericity was significant $X^2=327.743$, $df=10$, $p<0.000$, implying that the factor analysis showed the existences of relationships among variables for customer loyalty. The results in Table 4.10

Table 4.10 KMO and Bartlett's Test of customer loyalty

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.541
Bartlett's Test of Sphericity	Approx. Chi-Square	327.743
	Df	10
	Sig.	.000

4.7.2 Correlation analysis

From the study Karl Pearson’s coefficient correlation was employed to test the extent of correlation between variables, according to Hair *et al.*, (2010) the correlation coefficient is a measure of linear association between two variables. Values of the correlation coefficient are constantly between -1 and +1. A correlation coefficient of +1 suggests that two variables are perfectly positively related in a linear sense; a correlation coefficient of -1 shows that variables are perfectly associated in a negative linear way.

Table 4.11 Correlation Co efficient

		Mobile banking	EFT	Online banking	Branch networking	CUSTOMER LOYALTY
Mobile banking	Pearson Correlation	1				
	Sig. (2-tailed)					
EFT	Pearson Correlation	.086	1			
	Sig. (2-tailed)	.236				
Online banking	Pearson Correlation	.170*	.444**	1		
	Sig. (2-tailed)	.018	.000			
Branch networking	Pearson Correlation	-.045	.251**	.247**	1	
	Sig. (2-tailed)	.534	.000	.001		.007
Customer loyalty	Pearson Correlation	-.027	.554**	.712**	.195**	1
	Sig. (2-tailed)	.710	.000	.000	.007	

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

From the results in table 4.11 it is indicated that EFT (0.00), Online banking (0.000), mobile banking (0.000) and Branch networking (0.000) was significant at 0.01 level. This result indicates that the independent variables of the study (EFT, Online banking, mobile banking and Branch networking) move in the same direction as the customer loyalty in commercial in Eldoret Town. Thus the relationship established is that as the level of customer loyalty improves or increase, the higher the chance that technological innovations (EFT, Online banking, mobile banking and Branch networking) develops in the banks

4.7.3 Regression analysis

In order to establish the availability statistical association between the independent variables of the study (EFT, Online banking, mobile banking and Branch networking) on the dependent variable (Customer loyalty) regression analysis was employed.

4.7.3.1 Regression coefficient between mobile banking and customer loyalty

The first study hypothesis indicated that there is no significant effect of mobile banking on customer loyalty among commercial banks in Eldoret Town. A simple multiple regression model was used to test for the relationship between the independent variables (mobile banking) and dependent variable (customer loyalty). As shown below

Table 4.12 Model Summary of mobile banking

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.822 ^a	.676	.674	.414

a. Predictors: (Constant), mobile banking

The result on model summary as shown in table 4.12 above indicates that R= 0.822, R- square = 0. 676, adjusted R- square= 0.674, and the SE= 0. .414. The coefficient of determination also called the R square is 0.676%. This means that the combined effect of the predictor variable (mobile banking) explains 67.6% of the variations in customer loyalty of commercial banks in Eldoret Town. This implies that a change in mobile banking has a strong and a positive effect on customer loyalty

Table 4.13 ANOVA of Mobile banking

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.838	1	67.838	396.205	.000 ^b
	Residual	32.532	190	.171		
	Total	100.370	191			

a. Dependent Variable: customer...loyalty
b. Predictors: (Constant), mobile banking

The significance of the regression model was tested using Analysis of Variance (ANOVA). Table 4.13 above presents the results of this test. The regression model also indicated that it was significant (p = .000) to mean that it had not been computed by chance, this was because the significance value is 0.000 which is less than 0.05. This made the results of the regression model credible and reliable.

Table 4.14 Coefficients of mobile banking and customer loyalty

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.137	.299		13.842	.001
	Mobile banking	.027	.073	.027	.372	.000

a. Dependent Variable: Customer Loyalty

Table 4.14 above shows the regression coefficients of the independent variable mobile banking are statistically significant in explaining customer loyalty. It showed that Mobile Banking was positive and significantly related to customer loyalty (B=0.270, p value=0.000). This implies that an increase in adoption and use of mobile banking by one unit leads to an increase in customer loyalty by 0.270 units.

These findings correspond that of Groennfeld (2014) who indicated that financial industries receive the awareness for requirement of mobility solutions, there are new opportunities, for both banks and consumers. Smart phones are changing financial lifestyles around the world get paid, make payments, send money to family, research agricultural or fish charges before taking their goods to nearby markets, determine where to put their savings, evaluate financial offerings providers, manage their budgets and shop for the future. Mobile banking’s tremendous development challenges traditional banking with a reduction of income, information loss about the turnover of their customers as well as lower margins as competition between those with expensive branch networks compete and all-electronic providers with few overheads continue to grow.

4.7.3.2 Regression coefficient between online banking and customer loyalty

The second hypothesis indicated that there is no significant effect of online banking on customer loyalty among commercial banks in Eldoret Town. A simple multiple regression model was used to test for the relationship between the independent variables (online banking) and dependent variable (customer loyalty). As shown below

Table 4.15 Model Summary for online banking

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.712 ^a	.507	.505	.534
a. Predictors: (Constant), online banking				

The result on model summary as shown in table 4.15 above indicates that R= 0.712, R- square = 0. 507, adjusted R- square= 0.505, and the SE= 0.534. The coefficient of determination also called the R square is 0.507%. This means that the combined effect of the predictor variable (online banking) explains 50.7% of the variations in customer loyalty of commercial banks in Eldoret Town. This implies that a change in online banking has a strong and a positive effect on customer loyalty

Table 4.16 ANOVA for online bating

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.683	1	55.683	195.521	.000 ^b
	Residual	54.111	190	.285		
	Total	109.794	191			
a. Dependent Variable: Customer Loyalty						
b. Predictors: (Constant), online banking						

The significance of the regression model was tested using Analysis of Variance (ANOVA). Table 4.16 above presents the results of this test. The regression model also indicated that it was significant (p = .000) to mean that it had not been computed by chance, this was because the significance value is 0.000 which is less than 0.05. This made the results of the regression model credible and reliable.

Table 4.17 Coefficients of Online banking and customer loyalty

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.458	.188		7.770	.000
	online...banking	.666	.048	.712	13.983	.000
a. Dependent Variable: Customer Loyalty						

Table 4.17 above shows the regression coefficients of the independent variables online banking, are statistically significant in explaining customer loyalty. Online banking were also positively and significantly related to Customer loyalty (B=0.666, p value=0.000). This implies that an increase adoption and use of online banking by one unit leads to an increase in customer loyalty by 0.666 units.

These findings are consistent to that of Scot (2014), who indicated that online banking provides consumers with expedient technique of conducting bank business from the comfort and security of their personal computer at their own homes. This means that consumers can check account balances and review other account information any time of the day or night. Online banking has totally changed the face of transactional business and has affected commerce across various trades and industries

4.7.3.3 Regression coefficient between branch networking and customer loyalty

The third hypothesis indicated that there is no significant effect of branch networking on customer loyalty among commercial banks in Eldoret Town. A simple multiple regression model was used to test for the relationship between the independent variables (branch networking) and dependent variable (customer loyalty). As shown below

Table 4.18 Model Summary of branch networking

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.195 ^a	.038	.033	.746
a. Predictors: (Constant), branch...networking				

The result on model summary as shown in table 4.18 above indicates that R= 0.195, R- square = 0. 038, adjusted R- square= 0.033, and the SE= 0.746. The coefficient of determination also called the R square is 0.195%. This means that the combined effect of the predictor variable (online banking) explains 19.5% of the

variations in customer loyalty of commercial banks in Eldoret Town. This implies that a change in branch networking has a strong and a positive effect on customer loyalty

Table 4.19 ANOVA of branch networking

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.160	1	4.160	7.482	.007 ^b
	Residual	105.634	190	.556		
	Total	109.794	191			
a. Dependent Variable: Customer Loyalty						
b. Predictors: (Constant), branch...networking						

The significance of the regression model was tested using Analysis of Variance (ANOVA). Table 4.19 above presents the results of this test. The regression model also indicated that it was significant (p = .007) to mean that it had not been computed by chance, this was because the significance value is 0.000 which is less than 0.05. This made the results of the regression model credible and reliable.

Table 4.20 Coefficients of branch networking and customer loyalty

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.208	.304		10.543	.000
	branch...networking	.202	.074	.195	2.735	.007
a. Dependent Variable: Customer Loyalty						

Table 4.20 above shows the coefficients of branch networking are statistically not significant in explaining customer loyalty. The study indicated that branch networking was not positively and significantly related to customer loyalty (B=0.202, p value=0.007). This implies that an increase in adoption and use of branch networking by one unit leads to an increase in customer loyalty by 0.202 units.

These findings concur to that of Groennfeld (2014) who indicated that mobile banking’s tremendous development challenges traditional banking with a reduction of income, information loss about the turnover of their customers as well as lower margins as competition between those with expensive branch networks compete and all-electronic providers with few overheads continue to grow. Mobile payment is a very fluid business. Further Govori (2013) asserts that the bottom line of the internet related banking is arguing that the rise of internet banks has increased the competition for the banking business. With both online and banks branches offer distinctive benefits and shortcomings, it may be unwise to do banking exclusively with either option. While it's impossible for everyone, the best play may be to split banking between both in-store and online services and enjoy the conveniences and savings of internet banks at the same time as maintaining the customer service and private relationships a physical department can provide.

4.9.3.4 Regression coefficient between EFT and customer loyalty

The fourth hypothesis indicated that there is no significant effect of EFT on customer loyalty among commercial banks in Eldoret Town. A simple multiple regression model was used to test for the relationship between the independent variables (EFT) and dependent variable (customer loyalty). As shown below

Table 4.21 Model Summary for EFT

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.554 ^a	.307	.303	.633
a. Predictors: (Constant), EFT				

The result on model summary as shown in table 4.21 above indicates that R= 0.554, R- square = 0.307, adjusted R- square= 0.303, and the SE= 0.633. The coefficient of determination also called the R square is 0.554%. This means that the combined effect of the predictor variable (mobile banking) explains 55.4% of the variations in customer loyalty of commercial banks in Eldoret Town. This implies that a change in electronic funds transfer has a strong and a positive effect on customer loyalty

Table 4.22 ANOVA of EFT

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	33.661	1	33.661	84.006	.000 ^b
	Residual	76.133	190	.401		
	Total	109.794	191			
a. Dependent Variable: Customer Loyalty						
b. Predictors: (Constant), EFT						

The significance of the regression model was tested using Analysis of Variance (ANOVA). Table 4.22 above presents the results of this test. The regression model also indicated that it was significant ($p = .000$) to mean that it had not been computed by chance, this was because the significance value is 0.000 which is less than 0.05. This made the results of the regression model credible and reliable.

Table 4.23 coefficient between EFT and customer loyalty

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.051	.436		.117	.907
	EFT	.978	.107	.554	9.165	.000

a. Dependent Variable: Customer Loyalty

Table 4.23 above shows the regression coefficients of the independent variables EFT, are statistically significant in explaining customer loyalty. EFT were also positively and significantly related to Customer loyalty ($B=0.978$, p value= 0.000). This implies that an increase adoption and use of online banking by one unit leads to an increase in customer loyalty by 0.978 units. These concurs to the findings of the federal commission of trade (2014) which discusses the law involving to the automated funds transfer as the automated banking, also known as electronic fund transfer used in place of checks and other paper transactions. EFTs can allow customer accessibility to an account very easy instigated through devices like cards or codes.

4.7.2.5 Overall Regression coefficient

A simple multiple regression model was used to test for the relationship between the independent variables (EFT, Online banking, mobile banking and Branch networking) on the dependent variable (Customer loyalty) regression analysis was employed. As shown in table 4.24 below

Table 4.24 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774 ^a	.598	.590	.48637

a. Predictors: (Constant), branch...networking, mobile banking, EFT, online...banking

From the results on model summary $R= 0.774$, R - square = 0.598 , adjusted R - square= 0.590 , and the $SE= 0.486$. The coefficient of determination also called the R square is 0.598% . This implies that the effect of the predictor variables (EFT, Online banking, mobile banking and Branch networking) explains 59.8% of the variations in customer loyalty of commercial banks in Eldoret Town. This implies that a change in the technological innovation has a strong and a positive effect on customer loyalty.

Table 4.25 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	66.262	4	16.565	70.027	.000 ^b
	Residual	44.473	188	.237		
	Total	110.735	192			

a. Dependent Variable: Customer Loyalty
b. Predictors: (Constant), branch networking, mobile banking, EFT, online banking

The significance of the regression model was tested using Analysis of Variance (ANOVA). Table 4.25 above presents the results of this test. The regression model also indicated that it was significant ($p = .000$) to mean that it had not been computed by chance, this was because the significance value is 0.000 which is less than 0.05. This made the results of the regression model credible and reliable.

Table 4.26 Coefficients of technological innovations and customer loyalty

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.401	.393		1.020	.309
	Mobile Banking	.162	.048	.160	3.393	.001
	EFT	.555	.092	.314	6.014	.000
	online...banking	.568	.050	.605	11.451	.000
	branch...networking	.041	.051	.039	.808	.420

a. Dependent Variable: Customer Loyalty

Table 4.26 above Mobile Banking was positive and significantly related to customer loyalty ($B=0.162$, p value= 0.001). This implies that an increase in adoption and use of mobile banking by one unit leads to an increase in customer loyalty by 0.162 units. Electronic funds transfer was also positively and significantly

related to Customer loyalty (B=0.555, p value=0.000). This implies that an increase in adoption and use of Electronic funds transfer by one unit leads to an increase in customer loyalty by 0.555 units. Online banking was also positively and significantly related to Customer loyalty (B=0.568, p value=0.000). This implies that an increase in adoption and use of online banking by one unit leads to an increase in customer loyalty by 0.568 units. Lastly the study indicated that branch networking was positively and significantly related to customer loyalty (B=0.041, p value=0.420. This implies that an increase in adoption and use of branch networking by one unit leads to an increase in customer loyalty by 0.041 units

The findings agree with those in Crane (2011) who stated that for any bank to be successful in the future, it is very significant that it sustains a high pace of customer loyalty because it will cost an organization to acquire more new customer as compared to the cost related to the maintenance of an already existing customer. Further Rogers (1995) technological innovation is an improved process, new idea or improved service or good that has been commercialized for the production of better services and goods.

Kwashie (2012) stated that technological innovation is recognized as one of the main indicators on the organizational competitive advantage as well as a crucial element in improving the loyalty of customers as well as their satisfaction and retention. Suiviland (2015) noted that technological innovation is making a huge difference in financial institutions in countries which are still developing like those in Asia and Africa. Further technological innovation is revolutionizing the banking industry.

Lastly Okiro and Ndungu (2013) indicated that the banking sector has continued to be dynamic and vibrant in embracing transformations due to global and local turbulences. The banks have continued to embrace the new technological innovation by replacing and upgrading their core banking systems. This is seen when there is an increase of on-line banking usage which has freed the banks employees from providing services manually hence increasing customer loyalty.

Table 4.26 above shows the regression coefficients of the independent variables EFT, Online banking, mobile banking are statistically significant in explaining customer loyalty

Thus the regression equation becomes;

$$Y = 0.401 + 0.162X_1 + 0.555X_2 + 0.568X_3 + 0.041X_4$$

Whereby Y = customer loyalty

X₁ = mobile banking

X₂ = online banking

X₃ = branch networking

X₄ = Electronic funds transfer

4.7.3.6 Summary of hypothesis testing

From the study a summary of results for hypothesis testing was done with a significance level of 0.05, such that when the significance value is less than the 0.05 the null hypothesis is rejected and when it is above 0.05 it is accepted, as shown in table 4.27

Table 4.27: Summary of Results for Hypotheses Testing

Hypotheses	Result (Accepted or Rejected)
H ₀₁ There is no significant effect of mobile banking on customer loyalty among commercial banks in Eldoret Town.	Null hypothesis rejected (p= 0.001).
H ₀₂ There is no significant effect of online banking on customer loyalty among commercial banks in Eldoret Town.	Null hypothesis rejected (p= 0.000).
H ₀₃ There is no significant effect of branch networking on customer loyalty among commercial banks in Eldoret Town.	Null hypothesis Accepted (p= 0.420).
H ₀₄ There is no significant effect of Electronic Fund Transfer on customer loyalty among commercial banks in Eldoret Town	Null hypothesis Rejected (p= 0.000).

V. Conclusion

From the study it was concluded that mobile technology and financial applications are changing the way customers, banks and sellers interact, Mobile banking services are more efficient, hence improved quality of services which maintains customer loyalty, Mobile banking is more secure, therefore increased customer confidence which enhances customer loyalty, it is comfortable and flexible to use, it is increased level of economic activities by the use of mobile banking, organizations also feel secure sending sensitive bank information across mobile banking. This is supported by Groennfeld (2014) who indicated that financial industries receive the awareness for requirement of mobility solutions; there are new opportunities, for both banks and consumers. Smart phones are changing financial lifestyles around the world get paid, make payments, manage their budgets and save for the future. Mobile banking's tremendous development challenges traditional banking with a reduction of income, information loss about the turnover of their customers as well as lower

margins as competition between those with expensive branch networks compete and all-electronic providers with few overheads continue to grow. Mobile payment is a very fluid business.

On the effects of online banking on customer loyalty the study concluded that the online banking of commercial banks is safe and secure, the online website of commercial bank gives sufficient promises to its customers, it also concluded that it is easy to complete a transaction through online banking and there is a lot of customer support in the banks' online website,

Further the study concluded that branch networking ensures accessibility in distance, accessibility of funds anywhere branch is located, Saves time and transportation cost, it also ensures Customer complains receives swift response. This is supported by Geoffrey (2015) discusses branch networking among banks by showing that online banking, has become the custom for simple bank transactions to some degree. The less difficult it is for purchasers to check their debts, or pay their payments and flow money from one account to the other, the much more likely they may be to virtually do these items and preserve a greater prepared economic life. but, it is essential to note that despite the fact that on line banking is a good addition and development, it does now not suggest that direct net banking is a replacement to their brick-and-mortar peers in all instances.

Lastly on the effects of electronic funds transfer on customer loyalty it was concluded that using electronic fund transfer saves time and allows me to accomplish my banking activities more quickly. Further it was indicated that electronic banking transfer would be easy for me to use, using electronic banking transfer enhances my effectiveness and efficiency in my life and using electronic banking transfer services extremely easy. These findings are supported by Holden & Karsh (2010), who indicated that now not all electronic funds transferrable are included by means of the EFT Act. for example, some economic institutions and merchants difficulty playing cards with cash value saved electronically on the card itself. Examples encompass prepaid smartphone cards, mass transit passes, popular reason reloadable cards, and some gift cards. these "stored-price" cards, as well as transactions the use of them, won't be blanketed with the aid of the EFT Act, or they will be subject to one of a kind policies underneath the EFT Act. this indicates clients won't be included for the loss or misuse of the card. Ask about the economic organization or merchant about any protections provided for those playing cards. Maboe (2009), separate rules apply differently to deposit accounts from which pre-authorized transfers are drawn. In this regard transfers from a customer's account which have been pre-authorized require written authorization and a copy of that authorization must be given to the consumer. Maboe (2009) further notes that contracts allocated in the banking institutions should contain more information on pre-authorized transfers

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