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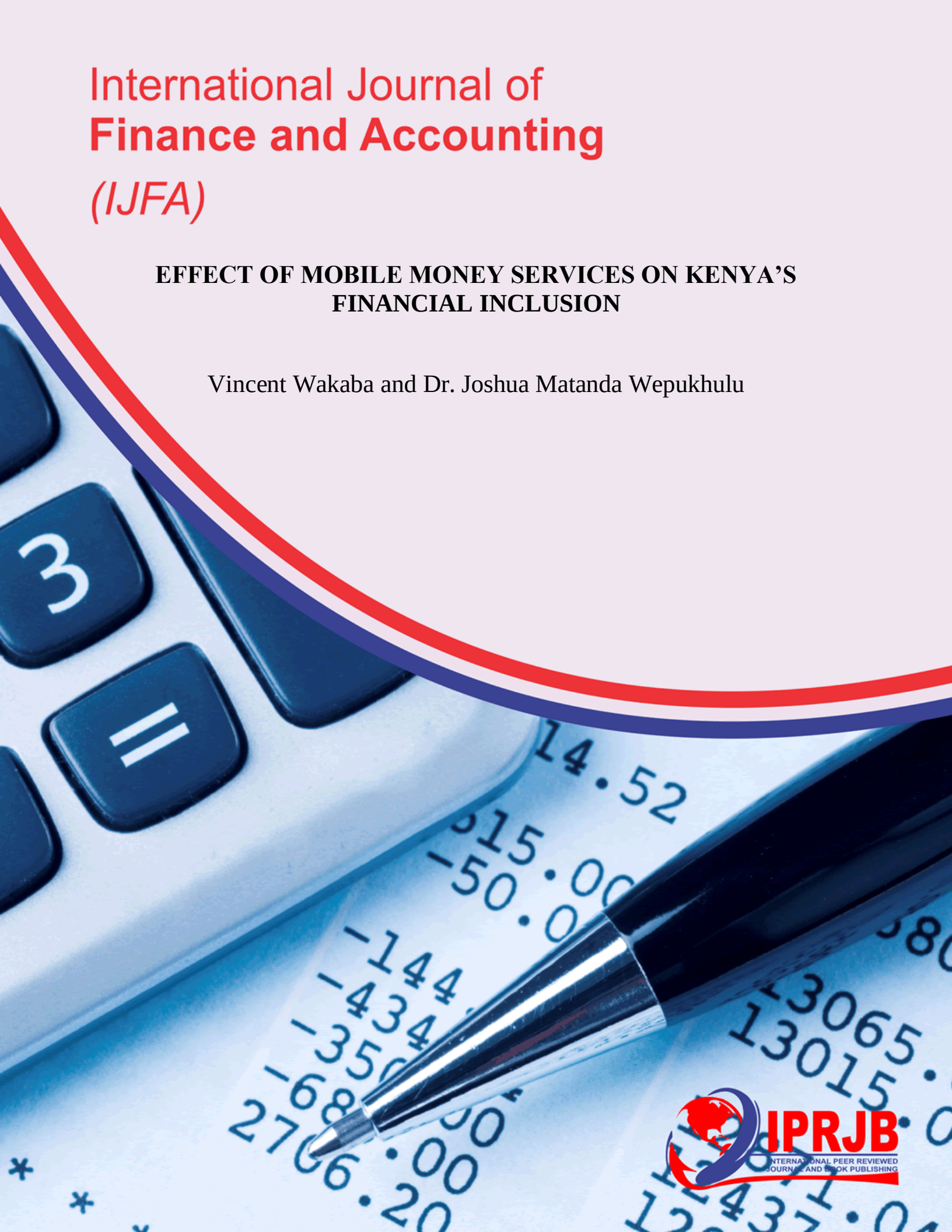

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EFFECT OF MOBILE MONEY SERVICES ON KENYA'S FINANCIAL INCLUSION

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Abstract

Purpose: The main objective was to determine the effect of Key mobile money services on financial inclusion in Kenya.

Materials and Methods: The study adopted a census research design. The target population was limited to the 4 firms (Safaricom, Airtel, Equity and Telkom) providing mobile money services in Kenya. The study relied on secondary data. The study review period was between 2013 and 2018. Descriptive statistical approaches, regression and correlation analysis was used to analyze secondary data. Data was analyzed quantitatively by use of SPSS (Statistical Package for Social Scientist) V21 program.

Results: The study established that the Mobile money deposit services, Mobile money saving services, Agency banking services and Mobile bill payment services positively and significantly affected Kenya's financial inclusion.

Unique contribution to theory, practice and policy: The study recommends that the providers of mobile money services should increase accessibility of these services to citizens since their continued usage leads to positive and significant growth of Kenya's financial inclusion. The providers can achieve this by encouraging many citizens to be their agents in offering the services. Availability of many agents acting on behalf of the mother company in various parts of the country increases the levels of access of the financial services.

Key words: *Deposit Services, Saving Services, Agency Banking Services, Mobile Money Financial Inclusion*

1.0 INTRODUCTION

In Philippines, 75% of the entire population lacked accessibility to financial services by 2009 and this was attributed to inaccessibility of banking services coupled with complication in opening bank accounts (Pickens, 2009). The emergence of mobile money services from telecommunication firms (Globe Telecom and Smart Communications) was a game charger in financial service accessibility in the country. Introduction of the mobile money services enabled citizens to receive their salaries through their phones as opposed to initial cash payments that existed previously. Additionally, the service acted as a safe savings instrument compared to the norm of hiding cash in the house. Provision of the mobile money services by the telecommunication firms linked citizens to financial institutions which enabled accessibility of loan services and payment of utility bills. This has improved financial inclusion in the country from 25% in 2009 to 54% in 2016 (Leishman, 2017).

Use of mobile money services in the United States of America is limited by existence of stringent government laws (Lee, 2010). Despite availability of the services, the laws prohibit mobile subscribers from using various services such as accessing development loans. This has resulted to more than 30 million citizens in the country remain financially excluded which represents a quarter of all American Households (US Census Bureau, 2010). The establishment of mobile money services by global telecommunication firms Monitise Americas and Obopay aimed at facilitating financial services reachability to underprivileged American residents whether banked or unbanked. The services provided by the firms enable citizens to conduct domestic money transfers, pay for bills and save for future.

From late 1999, access to mobile phones in Kenya begun to steadily rise. By the time mobile money was being launched in 2007, the ground work was already in place in regards to a ready clientele and opportunity to simplify access person to person transfers. This background especially the fast and successful uptake of mobile money has seen Kenya be considered a pioneer in successful uptake of Mobile Money services. According to KNBS Survey Report (2012), amongst a population of 40 million people in Kenya, a total of 29.8 million people had mobile subscriptions by December 2012 representing penetration rate of 75.8%. All telecommunication firms in Kenya have developed mobile money services to their subscribers and have additionally engaged agents located country wide aiming at delivering the services closer to people.

Mobile money services in Kenya

Mobile money service specifically transfer service is a process that involves transmitting money from one individual to the other by use of a mobile phone activation which can be honored ultimately with transactions in form of cash by a business or a financial institution (Agrawal, 2009). The transfer services offer financial connections to subscribers through the mobile phone. This creates an avenue where the respective network allows unbanked or banked subscribers to deposit value to another subscriber and further allowing recipients to convert the value into cash easily and cheaply. Financial services through mobile phones form one of the important means

through which mobile telephony transforms businesses and lives of citizens in the developing economies (Agrawal, 2009).

Kenya has witnessed a growth in development of mobile money services that have enabled citizens to advance their lives and access financial services irrespective of their geographical locations. The growth and development of the services have been spurred by advancement in levels of technology and acceptance of the technology by consumers (Suri & Jack, 2010).

M-PESA, a service offered by Safaricom, is a leading mobile money service that was launched in 2007. It registered 111,000 in the first month of its launch and by March 2012, the service had more than 18.9 Million subscribers. The service had also created a network of more than 45,861 agents countrywide offering the services to subscribers. As at September 2018, M-pesa had 162,800 Agents and 24.2 Million Subscribers

Apart from M-PESA, there exist other mobile money services which include Airtel's Airtel Money, Equitel from Equity bank and T-kash from the rebranded Telkom Kenya. Availability of these mobile money services enables subscribers to withdraw and deposit money, pay for utility bills and register for other services. Additionally, these services are offered by agents contracted by respective firms countrywide hence creating financial accessibility even to marginalized areas. Financial accessibility to the marginalized groups have enhanced financial inclusion which have resulted to economic growth. According to Radcliffe and Mas (2010), financial transactions through the mobile phones accounted for 9.2% of GDP in Kenya in 2017.

The success witnessed in the Mobile Money Services (MMS) in Kenya is attributed to the existence of appropriate ecosystem and customer confidence. The platforms are reliable, accessible, trustworthy and serves as alternative to one another depending on network reachability. MMS have also continued to play an important role in the Kenyan economy by enabling financial transactions such as mobile payments and money transfer. The rapid growth witnessed in MMS has produced an important shift in financial landscape in the country.

Statement of the Problem

At the infancy on mobile money, a Fin Access Report of 2009 depicted a high financial exclusion standing at 59%. The 59% consisted of citizens considered among the adult population who have complete and total exclusion from any formal financial institution. The presumption was that those excluded had innovated around informal financing methods e.g sending money home via a shuttle bus. This assertion was further vindicated by an IMF report done in 2012 that restated that Africa still had low financial access.

Come 2017, a Household survey by Fin Access indicated that financial inclusion in Kenya was at 75.3% of the adult population. In 2018, a Quarterly Sectorial report by CA (July to Sept 2018) depicted growth across various measurement metrics of MMS notably 35.9% in Subscribers, 80.3% active agents compared against previous quarter. Cumulatively, mobile phone penetration stood at 100.1% with 30% of mobile phone users owing more than 1 SIM card. 64% of inhabitants had access to and had used mobile money services largely supported by a network of 218,495 MNO serving 29.7 Million subscribers. Ironically, in the same time period, the IMF (2018) report showed that access to formal financial services remained less than 20%.

These reports and surveys have created an uncertainty around the actual effect of mobile money services especially in regards to minimizing financial exclusion. This lack of a conclusive synopsis has provided a need for this study. Other than the reports aforementioned, some literature has also been put forward to try and address various aspects of the relationship between mobile money services and financial inclusion. Metre (2010) for instance, focused on the influence of mobile banking services on financial inclusion amongst the poor in 5 countries, Kenya included. Metre concluded that given the relatively new state of Mobile Financial services, research was needed on the long-term implications of such services for both providers and clients, and whether successful services in one country can be adapted to others. Mbidde (2017) focused on mobile money service and financial inclusion in rural areas of Uganda. Mbidde concluded that there were significant challenges in the utilization of MMS key among which is mobile money network breakdown, fraud, insecurity to operate MMS and insufficient funds at MMS points and high transaction costs. Mbidde gave recommendations touching on community sensitization, network improvement and policies among others. Sangare (2013) focused on mobile money and financial inclusion in Mali where she gave recommendations relating to Market structure, regulation and synergy between players thus underscoring the pivotal role played by mobile banking in Financial inclusion in Mali.

The topic of the study also focuses on specific mobile money services rather than a combination of the services. Studies such Musa and Adong (2016) from Uganda evaluated how mobile money saving services influence financial inclusion in Uganda. Chitokwido and Mago (2014) in Zimbabwe focused on mobile money deposit service and its influence on financial inclusion. Kandie (2011) focused purely on the effects of agency banking on financial inclusion Kenya. This study therefore seeks to fill Knowledge, contextual and conceptual gaps by establishing the effects of four mobile money services on financial inclusion in Kenya.

2.0 LITERATURE REVIEW

2.1 Theoretical Framework

A theoretical framework is important to a researcher because it helps in limiting the scope of data relevant to the study by focusing on specific variables and viewpoint. Cherry (2015) defines a theory as a fixed principle that has been developed to elucidate some characteristic of the natural world.

2.1.1 Modern Portfolio Theory

The theory was proposed by Professor Markowitz (1959) and proposes that investors balances the level of risks and returns expected aiming at maximizing earnings from a portfolio. According to the theory, portfolios forms efficient and effective means of increasing returns while at the same time decreasing risks associated with an investment. This has of late made portfolios achieve high attention in the field of finance. The theory introduces an analysis of mean variance to ease the problem of selecting portfolios. According Markowitz (1959), the theory quantifies risks and demonstrates quantitatively how and why portfolios works bests to investors in reducing risks. According to the theory, a portfolio risk is quantified as a standard

deviation of expected periodic returns while the reduction of the problem of selecting a portfolio is conducted through computing an effective and efficient portfolio which reduces the anticipated risk for a certain fixed return level within a specific period.

The theory asserts that good investments are characterized by high returns expected while an investment with returns characterized by small standard deviation greatly attracts investors. Consequently, the theory adds that associated standard deviation of risk or returns can be minimized by combining securities. However, the theory notes that each level of assets bears varying levels of associated risks and returns and behaves uniquely in that the value of one asset may be increasing while another may be decreasing or increasing and vice versa. The theory further emphasizes that risks are implicitly related with higher rewards. According to Markowitz (1952), there is a possibility of making efficient frontiers from optimal portfolios thus maximizing returns at a particular risk level. The theory provides investors with a clear way of investing by demonstrating how expected returns and risks can be estimated.

The theory is of relevance to the current study as it informs of the opportunities found in investing in mobile money services. Similarly, the theory connects the value of mobile money investments and how they can affect financial inclusions in the country through offering deposit services to customers. By accepting deposits from customers, the investor is provided with a room of lending the same to other customers thus enhancing financial inclusion. This theory thus informs the deposit variable of Financial Inclusion

2.1.2 Savings Theory

The theory was proposed by Deaton (1992) and asserts that existence of savings in various forms such as human capital, issuance of loans and intangible goods enables a firms to expand its activities to reach wider markets. The theory predicts that the absolute amount of savings held by a firm increases the firm's level of income that enhances its expansion. This is attributed to the fact that firms receiving high incomes possess more resources that enhances savings. The theory further predicts that the rate of savings and savings proportionate to the level of income increases with income. This is associated to the notion that firms that have high incomes tend to use more in its operations and expansion. As the usage of the incomes intensifies, the marginal benefits associated with additional usage decreases which enables a firm to continue with its operations. The existing costs of saving in respect to postponed benefits from usage is lower for firms that spend more which culminates to increased savings. Additionally, availability of avenues for savings similarly increases savings in a firm.

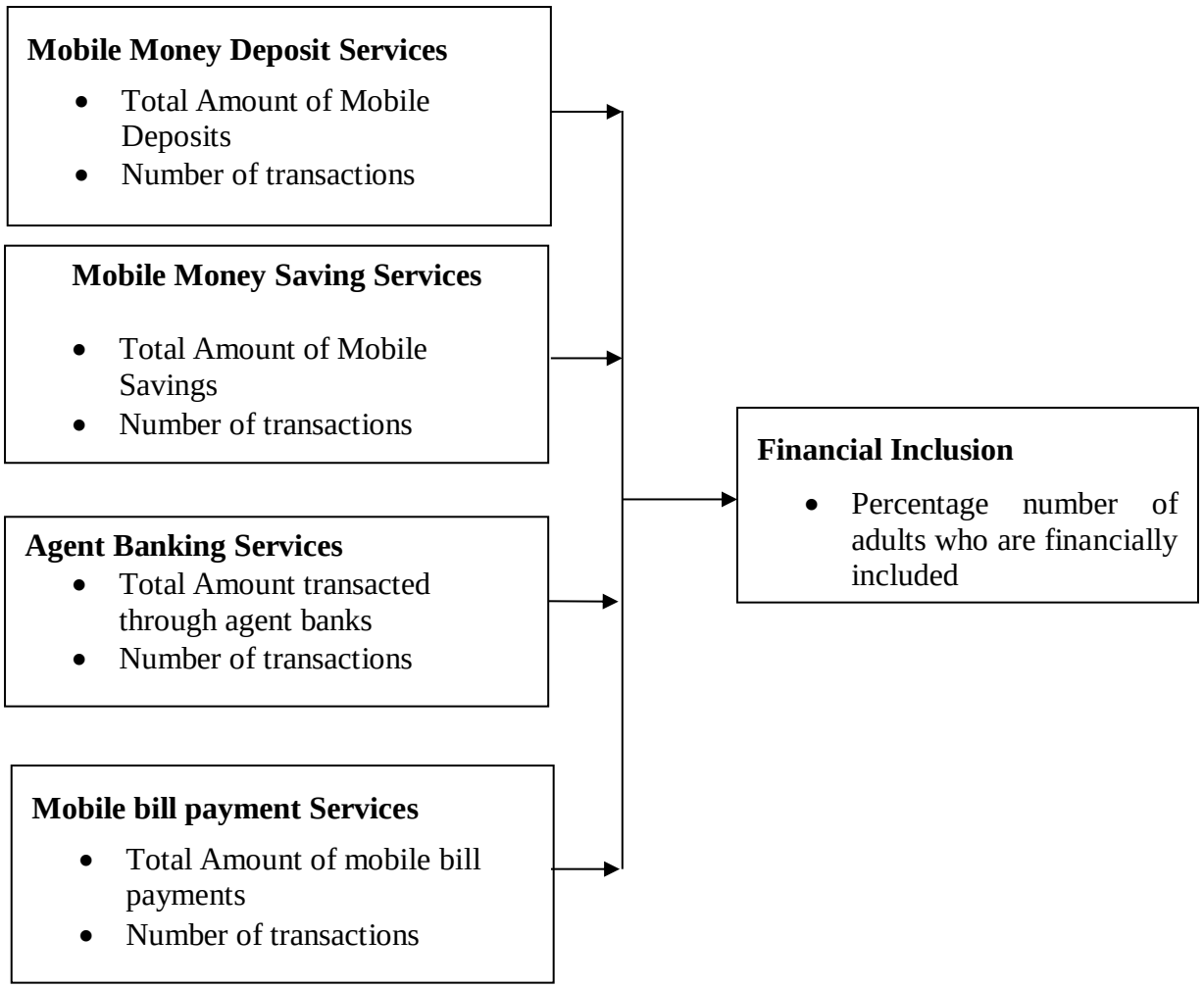
Empirical studies associated with the theory indicate that firms earning high profits retain a larger proportion of the profits to be used later in expanding service deliveries in areas with deficiencies of services and products offered by a firm. Similarly, the retained profits serve as securities for firms in times of emergencies and uncertainties. According to Gale and Carney (2010), firms receiving low profits possess negative rates of saving and fail to retain a considerate proportion of profits for expansion purposes and accumulation of assets.

According to the theory, the rate and level of saving amongst firms and individual depends on availability of means of savings for individuals and subsistence requirements for firms.

Availability of means of savings for individuals characterized by accessibility, affordability, convenience and reachability enables individuals to diversify their means of savings and use the savings in enhancing their lives. In the case of firm, the theory asserts that availability of high profits paves ways for retaining a considerable amount of profit that a firm uses to expand its activities. The saving theory is adopted in this study to amplify the importance of providing saving services by mobile money service providers.

2.2 Conceptual Framework

According to Anfara (2008), a conceptual framework comprises of a network of concepts linked together to provide a broad understanding of a phenomenon. The framework provides structure and content for the whole study. Tromp and Kombo (2009), describe a concept as an abstract or broad idea inferred or resulting from definite instances. Additionally, they defined a conceptual framework as a set of extensive ideas and philosophy taken from pertinent areas of study and used to constitute a subsequent presentation. The study conceptalizes mobile money trasnfer services (mobile money deposits, mobile money savings, agency banking and bill payments services) as independent variable and financial inclusion as the dependent variable. The conceptual framework of the curent study is as presented in figure 1.



Independent Variables **Dependent Variable**

Figure 1: Conceptual Framework

2.3 Empirical Review

McGregor (2013) conducted a study that sought to link mobile money services with financial services accessibility in Japan. The study focused on analyzing how the mobile service technology had enhanced under banked and unbanked populations decrease their financial risks and gain accessibility to a more secure financial arena. The findings of the study revealed that the mobile money services such as deposits and saving services enabled the population to meet their financial needs at instances of unavailability of banking services. Of more importance is the fact that the services more so deposit services provided avenue where individuals would deposit their money for safety and convenience.

Musa and Adong (2016) conducted a study to evaluate how mobile money saving services influence financial inclusion in Uganda. The study evaluated people's saving behaviors through a mobile phone and how the savings impacts their lives. Study population comprised of citizens who possessed a mobile phone with registered and operational SIM card. Interview guides were used in collecting qualitative data which later analyzed through content analysis. The study established that most Ugandan citizens do not save through mobile phones but there was a high likelihood of a registered mobile money user to save through mobile money. The study further revealed that most of the residents in rural areas used mobile money saving services to save for a specific activity and after accomplishment, the saving ceases. This had however enhanced enabled the rural residents to manage their finances.

Implementation and adoption of agency banking in the 21st century has led to emergence of several researches in the area which have availed crucial information to banks on the adoption of the model. The strength of the agency banking lays in the dynamic technological advancement globally. According to Schmidt and Muzigiti (2013), advancement in have transformed the entire banking system driven by the need to of offering affordable financial services and products to customer in order to remain competitive in the market. The developments have led to emergence of novel channels for delivering financial services and products such as the agency services. In Africa, it is estimates that more than 16% of adult pay their bills through the agencies and the figure is expected to increase as a result of integration of mobile money services with banks.

Munyoro, Kutesera and Mazuvawanda (2017) conducted a study to investigate the significance of mobile money services on social economic development and financial inclusion in Zimbabwe. The study used focus groups and questionnaires in data collection. The findings of the study revealed a positive and significant relationship between mobile money services and social economic development and financial inclusion the country. The services contribute to social economic development through employment creation and enhances financial inclusion through availing financial services to marginalized groups in the society. Through the transfer services, the study established that citizens were in a position to pay for their bills and other services at the comfort of their homes. The study recommended the government to establish favorable legal framework that favors operations of the mobile transfer services to promote its usage and accessibility in order to safeguard the interests of customers when paying for their bills.

3.0 METHODOLOGY

The study adopted a census research design. The target population was limited to the 4 firms (Safaricom, Airtel, Equity and Telkom) providing mobile money services in Kenya. The study relied on secondary data. The study review period was between 2013 and 2018. Descriptive statistical approaches, regression and correlation analysis was used to analyze secondary data. Data was analyzed quantitatively by use of SPSS (Statistical Package for Social Scientist) V21 program.

4.0 RESEARCH FINDINGS AND DISCUSSION

4.1 Descriptive Statistics

The purpose of descriptive statistics is to enable the researcher to describe distributions of scores or measures using statistics. The statistics provide detailed information on the variables under consideration.

4.1.1 Descriptive Statistics on Mobile Money Deposit Services

Part of the study objectives was to evaluate the amounts of mobile money deposits that have been transacted by mobile money service providers from 2013 to 2018. The results presented in figure 2 show that there has been a steady increase in the amount of deposits with 2013 recording the lowest deposits of Kes 1.03 Trillion and 2018 reaching a peak of Kes 4.29 Trillion. The increase implies that there has been an increase in the usage of deposit service by citizens.

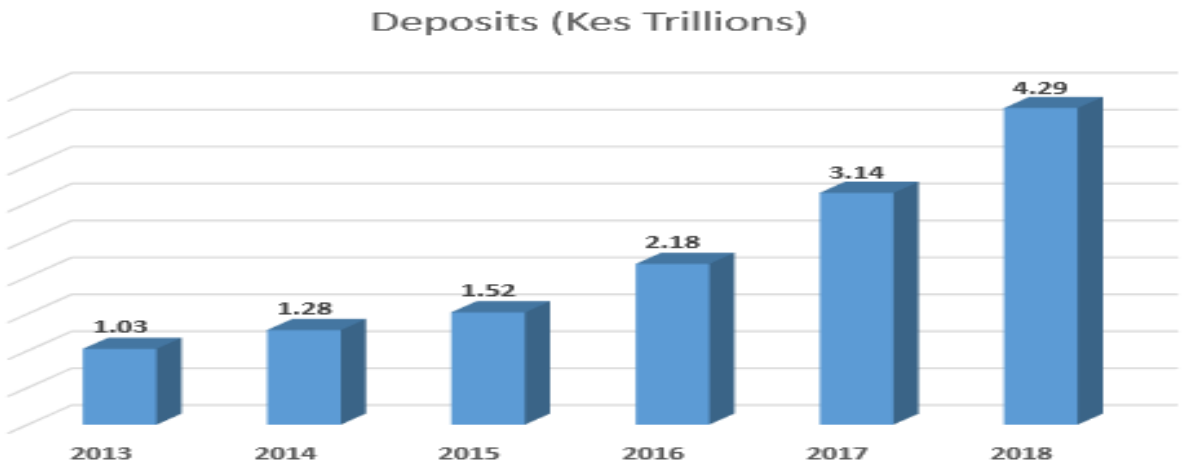


Figure 2: Value of Mobile Money Deposits

4.1.2 Descriptive Statistics on Mobile Money Saving Services

The results on the amounts of savings (calculated by subtracting withdrawals from deposits) through mobile money services are as shown in figure 3. According to the results, there has been a steady increase amounts of savings from 2013 to 2018. The percentage of deposits withdrawn has also reduced from a high of 92% in 2013 to 85% in 2018 signifying that citizens are retaining funds in their Mobile money wallets longer.

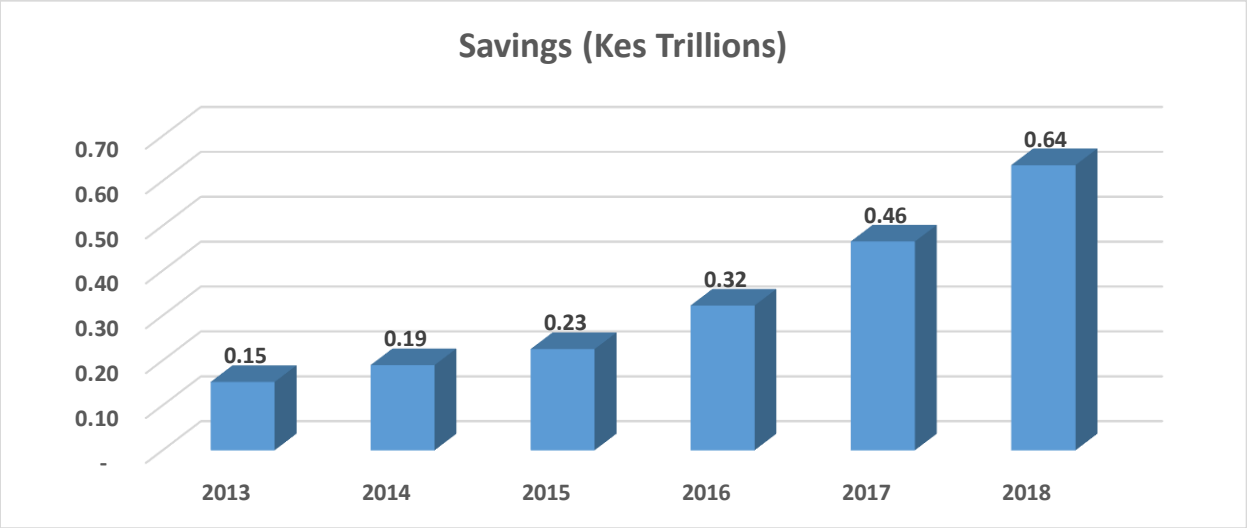


Figure 3: Value of Mobile Money Savings

4.1.3: Descriptive Statistics on Agency Banking Services

The results on the amounts transacted through agency banking services indicated in figure 4 shows that there has been a steady increase in the value of transaction through agency banking services. The results show that 2013 recorded the lowest amounts while 2018 recorded the highest amounts. The results imply that there has been an increased accessibility of financial services amongst citizens through agency banking services.

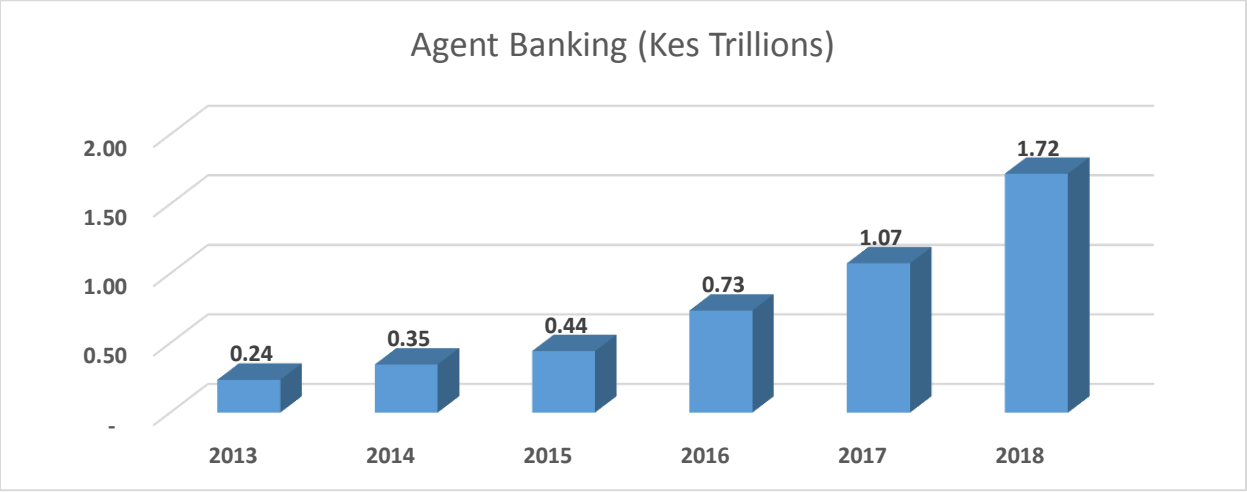


Figure 4: Transaction Value through Agency Banking services

4.1.4 Descriptive Statistics on Mobile Money Bill Payment Services

The results on the amounts of bills paid through mobile bill payment services are as presented in figure 5. Bill payments was reviewed as total transactions marked as mobile commerce in declarations by CCK/CA. The results show that the amounts that have been paid through the

mobile bill payment service have had the largest growth spike primarily due to growth of the merchant ecosystem for payments from 2015.

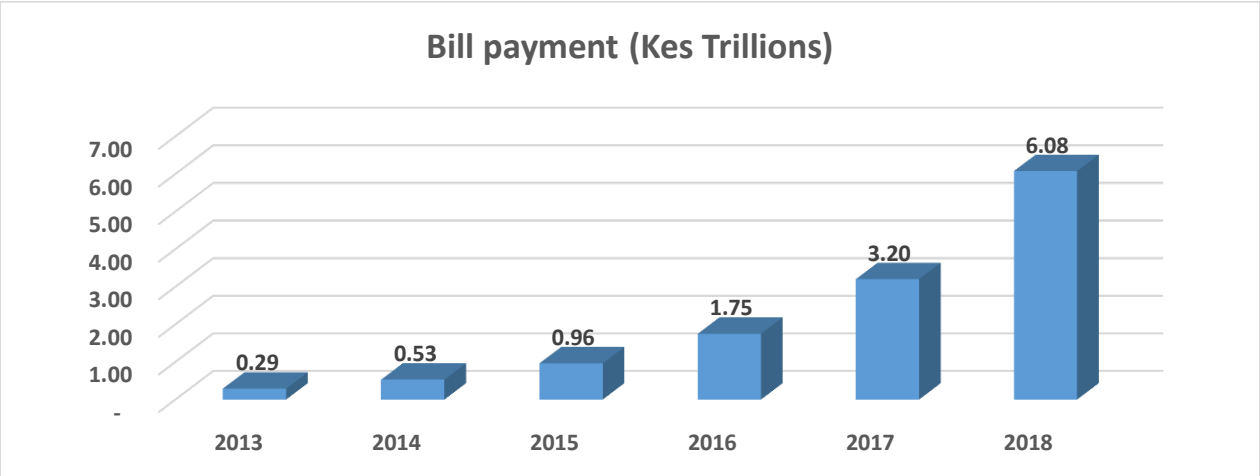


Figure 5: Value of Mobile Bill Payments

4.2 Inferential Statistics

This section presents the inferential statistics comprising both correlation and regression analysis. The aim of conducting the analysis was to establish existence of further relationships between mobile money services and financial inclusion in Kenya.

4.2.1 Correlation Results

The study sought to establish the relationship between four independent MMS variables (deposit, savings, agency banking, bill payment) and dependent variable (financial inclusion).

The results of the correlation analysis (see table 1) show that the correlation between the amounts of deposits and volume of transactions is 0.956 and a p-value of 0.000. This means that the correlation is positive and significant implying that increase in levels of mobile money deposits leads to increased financial inclusion in Kenya. The findings are consistent with Vong *et al.*, (2012) who noted that the amount of deposits across all mobile money services acts as an indicator of financial inclusion in that when the deposits are high, it implies that most people are accessing the deposit service.

The correlation results further show that there exists a positive and significant correlation between amounts of savings and financial inclusion in Kenya as shown by a value of .943 and p value of 0.000. This implies that increase in accessibility of mobile money saving services leads to increase financial inclusion in Kenya. The findings are consistent with to Ouma, Odongo and Were (2017) who noted that availability of mobile saving services to unbanked, underprivileged and in remote areas enhances financial inclusion that promotes economic developments.

The correlation results also show that there exists a positive and significant correlation between agency banking services and financial inclusion in Kenya as shown by a correlation value of .901 and p value of 0.000. The implication is that increase in accessibility of agency banking services

has led to increased financial inclusion in Kenya. The findings are consistent with Jayanty (2012) noted that agency banking increases the level of formal financial inclusiveness in underserved and un-served areas by encouraging people to deposit cash, open accounts and perform withdrawals from the agent without necessarily going visiting the banks premises.

The correlation results finally show that there exist a positive and significant correlation between bill payment services and financial inclusion in Kenya as shown by a correlation value of .958 and p value of 0.000. This implies that increase in the accessibility of mobile bill payment services leads to increased financial inclusion. The results are consistent with Eilu and Auma (2017) who posit that there exists a positive relationship between mobile bill payment service and financial inclusion in that higher number of bill payments transactions and high total amount of bills payments implies that most people use the service in paying for their bills.

Table 1 Correlation Coefficient

Variable	**Deposits services(Kes Billions)**	**Savings services(Kes Billions)**	**Agent banking services (Kes Trillions)**	**Bill Payments services (Kes Trillions)**	**Number of Transactions (Millions)**
Deposits services (Kes Billions)	Pearson Correlation	1			
	Sig. (2-tailed)				
Savings services (Kes Billions)	Pearson Correlation	0.992	1		
	Sig. (2-tailed)	0			
Agent Banking services (Kes Trillions)	Pearson Correlation	0.942	0.933	1	
	Sig. (2-tailed)	0	0		
Bill Payments services (Kes Trillions)	Pearson Correlation	0.896	0.892	0.984	1
	Sig. (2-tailed)	0	0	0	
Number of transactions(Millions)	Pearson Correlation	0.956	0.943	0.901	0.958 1
	Sig. (2-tailed)	0	0	0	0

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

4.2.2 Multiple Regression Analysis

The model summary result of the analysis is presented in Table 2. The model results show that there is a strong relationship between mobile money deposit services, mobile money saving services, agency banking services and mobile bill payment services and financial inclusion as show by R= .946. Additionally, the coefficient of determination shown by the value of R square which is 0.894 implies that 89.4% of variation in financial inclusion in Kenya can be explained by mobile money deposit services, mobile money saving services, agency banking services and mobile bill payment services. The other 10.6% is accounted by other indicators not included in the study.

Table 2 Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.946[a]	0.894	0.853	54.6

The results of ANOVA presented in Table 3 also indicates that the entire model linking mobile money deposit services, mobile money saving services, agency banking services and mobile bill payment services with financial inclusion was statistically significant. The level of significance is confirmed by comparing the value of F calculated which is 322.73 and the value of F critical at (4, 35) which is 3.91. With the value of F critical at (3.91) and value of F calculated at (322.73), the implication is statistical significance.

Table 3: ANOVA (Model Significance)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	9135851	4	2283962.75	322.73	0.0
Residual	247698.6	35	7077.09		
Total	9383549.6	39			

The results of model coefficient presented in table 4 shows that mobile money deposit services have a positive and significant effect on financial inclusion in Kenya as shown by $\beta = 0.785$ and Sig = 0.000 <0.05. This means that a unit increase in the accessibility of mobile money deposit services leads to an increase of 0.785 units in financial inclusion in Kenya. The results are consistent with McGregor (2013) findings on his study which sought to link mobile money services with financial services accessibility in Japan and revealed that mobile money services such as deposits and saving services enabled the population to meet their financial needs at instances of unavailability of banking services.

The results also show that mobile money saving services have a positive and significant effects on financial inclusion in Kenya as shown by $\beta = 0.219$ and Sig = 0.006 <0.05. This means that increase in the accessibility of mobile saving services leads to an increase of 0.219 units in financial inclusion in Kenya. The results concur with Serge, Clovis and Alain (2017) findings which revealed that mobile money services enhanced saving cultures of disadvantaged groups in the region such as rural dwellers and individuals with low income to save for emergencies.

The results further show that agency banking services have a positive and significant effects on financial inclusion in Kenya as shown by β = 3.245 and Sig = 0.000 <0.05. This means that increase in the accessibility of agency banking services leads to an increase of 3.245 units in financial inclusion in Kenya. The results concur with Aduda (2013) findings which established that the agency banking enhances accessibility of financial services to citizens which in turn increases economic growth.

The results finally show that mobile bill payment services have a positive and significant effects on financial inclusion in Kenya as shown by β = 7.896 and Sig = 0.000 <0.05. This means that a unit change in accessibility of mobile bill payment services leads to an increase of 7.896 units in Kenya's financial inclusion. This is in line with findings of Munyoro, Kutesera and Mazuvawanda (2017) who established existence of a positive and significant relationship between mobile money services such as bill payments and social economic development and financial inclusion amongst countries.

Table 4 Model Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
Predictors	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	35.129	23.521		1.494	0.000
Deposits services (Kes Billions)	0.785	0.142	0.696	5.528	0.000
Savings services (Kes Billions)	0.219	0.62	0.199	1.780	0.006
Agency banking services (Kes Trillions)	3.245	0.879	3.123	3.692	0.000
Bill Payments services (Kes Trillions)	7.896	1.235	6.702	6.394	0.000

The optimal linear regression model for the study therefore becomes:

Financial Inclusion = 35.129+ 7.896 (Mobile bill payment service) + 0.785 (Mobile deposit services) + 3.245 (Agency banking services) + 0.219 (Mobile saving service)

According to the model, mobile bill payment service was the most significant variable, followed by mobile deposit services, then agency banking services and lastly saving services. However, all the independent variables positively and significantly have an effect to Kenya's financial inclusion.

5.0 SUMMARY, CONCLUSIONS & RECOMMENDATIONS

Summary of the findings

The overall objective of the study was to establish the effect of four mobile money services on Kenya's financial inclusion. The results are as depicted in the table below;

Table 5– Findings of Study

MMS	Finding	Significance
Deposit	Positive and significant relation	Growth of the service increases Financial Inclusion
Savings	Positive and significant relation	Growth of the service increases Financial Inclusion
Agency Banking	Positive and significant relation	Growth of the service increases Financial Inclusion
Bill Payment	Positive and significant relation	Growth of the service increases Financial Inclusion

Conclusion

The study findings led to conclusion that that mobile money deposit services, mobile money saving services, agency banking services and bill payment services all positively and significantly affect Kenya's financial inclusion. The study further established that increasing the levels of accessibility of these services will in tandem keep positively and significantly affecting Kenya's financial inclusion.

Recommendations

The study recommends that the providers of mobile money services both MNOs and Banks should increase accessibility and availability of deposit services through MM Agents, savings services through targeted savings products, agency banking services by Banks and bill payment services through increase of merchants. This has been proven to have a positive and significant effect on financial inclusion in Kenya.

The government of Kenya should formulate favorable policies guiding the operations of mobile money services in order to encourage more providers in the market to extend the geographical coverage of the mobile money services.This will ensure that a more citizens have access to financial services and products which increases the levels of financial inclusion in the country.

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