

Determinants Of Mobile Banking Among The Lower Cadre Employees In Mau Tea Multipurpose Cooperative Society Ltd.

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ABSTRACT

ICT innovation has revolutionized the banking sector in a bigger way and their application has led into emergence of internet banking. This research seeks to examine the determinants Of Mobile Banking Among the Lower Cadre Employees in Mau Tea Multipurpose Cooperative Society Ltd. The questions are how does : ATM use , IT knowledge and internet access affect the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd. The research adopted case study research design, a sample of 154 selected from a population of 249 using simple random sampling techniques. Data was collected using questionnaires. Obtained data was analyzed by descriptive and inferential statistics, to examine various sub categories of data in order to make meaning out of them. Multiple regression analysis method was used in testing relationships among variables. Findings indicate that: there was strong relationship between IT knowledge and ATM a weak effect of internet access was realized on employee savings while IT knowledge as a predictor was the best loaded compared to all other predictors in support of employee's savings. Recommendations: Research to employ bigger sample size to carry out further research , further research is encouraged on Mobile Network Operations to establish its poor response and low support towards employee savings on clients.

Key words: Mobile Banking, Internet access and Automated Teller System

BACKGROUND TO THE STUDY

The Internet is rapidly turning out to be a tool of worldwide communication. The increasing use of Internet earlier promoted producers and entrepreneurs to sell their products online as well as becoming an important source of information and knowledge, (Sathye, 2007). Due to this, many banking and finance organizations have come up with the idea of Internet banking or online banking.

According to comptroller's (1999), internet banking refers to systems that enable bank customers to access accounts and general information on bank products and services through a personal computer or other intelligent device. (Saythe,1999). According to Basel Committee Report on Banking Supervision, (1998), Internet banking is the provision of retail and small value banking products and services through electronic channels. Such products and services can include deposit - taking, lending, account management, the provision of financial advice, electronic bill payment, and the provision of other electronic payment products and services such as electronic money.

In Jun Wu 's views (2005), Internet banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. Internet banking includes the systems that enable financial

institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through the Internet. Customers access e-banking services using an intelligent electronic device, such as a personal computer, personal digital assistant, Automated Teller Machine (ATM), Kiosk, or touch Tone telephone.

Internet banking is a revolutionary technology designed to come to the aid of both the bank and the client, but requires some costs (Lavinia, 2014). Available research shows that for over a decade, information technologies have significantly affected the banking industry all over the world. Banks and other financial institutions worldwide have improved their functions as financial intermediary through adopting various information technologies (Chang, 2002; Haynes & Thompson, 2000; Venkatesh et al. (2003).

Available literature also shows that modern internet banking has brought relief to the increased volume and complexity of banking operations and services delivery and Internet banking and electronic fund transfer gradually has become part of daily transaction in business world and that information technology through Internet banking is radically changing how banking is done all over the world (Lavinia, 2014). Thus, the volume and speed of banking transactions has improved tremendously as a result of the growth of internet banking which has created a lot of changes and business opportunities for banks operated bodies and industries.

LITERATURE REVIEW

Concept Of Electronic Banking

The development of IT has seen innovation and use of network computers to mobile services (Schofield & Kubin 2002). This is what has been referred to as electronic or internet banking.

The use of electronic banking is considerably high according to (Wambari, 2009) and as more and more users sign up for electronic banking, the maturity regarding remote banking is increasing with electronic banking. Users can conveniently carry out banking transactions; which cannot be achieved if the users do not have access to internet (Wambari, 2009).

Mpesa-Mobile Money Transfer

M-Pesa (M for mobile, pesa is Swahili for money) is a mobile-phone based money transfer and micro-financing service, launched in 2007 by Vodafone for Safaricom and Vodacom, the largest mobile network operators in Kenya and Tanzania, (Michael, 2012). It has since expanded to Afghanistan, South Africa, India and in 2014 to Eastern Europe. M-Pesa allows users with a national ID card or passport to deposit, withdraw, and transfer money easily with a mobile device (Sanja et al., 2012).

Study by Sanja et al., (2014) asserted a theoretical prospective that, M-Pesa is basically operated by Safaricom mobile network operators (MNO) not classed as deposit-taking institutions, such as a bank. M-Pesa customers can deposit and withdraw money from a network of agents that includes airtime resellers and retail outlets acting as banking agents. The service enables its users to: deposit and withdraw money, transfer money to other users and non-users, pay bills, purchase airtime and transfer money between the services and, in some markets like Kenya, a bank account. A partnership with Kenya-based Equity Bank launched M-KESHO, a product using M-PESA's platform and agent network that offers expanded banking services like interest-bearing accounts, loans, and insurance.

Mobile Banking

According to Wambari (2009), the advent of the internet has revolutionized the way the financial services industry conducts business, empowering organizations with new business

models and new ways to offer 24 hours' accessibility to their customers. The ability to offer financial transaction online has also created new players in the financial services industry such as: online banks, online brokers and wealth managers who offer personalized services. Mobile and wireless market has been one of the fastest growing markets in the world exceeding 2.5 billion in September 2005. Online banking household was expected to rise by 2010 and now it has penetrated all sectors of work life. Mobile banking is a financial transaction conducted by logging on the bank website by using a mobile phone or Personal Digital Assistant (PDA) to view balance account transaction, balance checks, payments etc. Today the mobile banking service is performed mainly via SMS or the internet.

Mobile banking is a powerful tool for economic growth and should be protected from challenges it faces. Safaricom is just one organization that offers mobile money services and therefore this research will not only benefit it but other organizations which offer the same services and other related industries such as the authorities in dealing with these menace. According to Sanja et al ., (2014), the mobile money services have now predisposed Kenya to a better macroeconomic environment, where the country's Central Bank can better monitor cash in circulation.

Empirical studies show that since its inception, M-Pesa which is currently the main basis for M-Banking, has tremendously grown since 2007 and that registered M-Pesa users were 1.1million within 8 months and by September 2009, over 8.5 million Kenyans had registered for M-Pesa.

A study done by Mbiti and Weil,(2014) on the impact of M-Pesa in Kenya revealed that combination of speed cellular communication and the ability to transfer money instantly, securely, and inexpensively are together leading to enormous changes in the organization of economic activity, family relations and risk management and mitigation.

Marawaynski & Pickens , (2009) found that the nature, pattern and impacts of remittances have been highly influenced by M-Pesa as users sent smaller but more frequent remittances resulting in overall larger remittances to rural areas. Marawaynski & Pickens, (2009) also noted that M-Pesa has potential of affecting savings as users would keep a balance on their M-Pesa accounts. However, this has not been examined and their observation that balances are kept does not give savings as a prime reason for utilization of M-Pesa.

Mobile cellular network

Study by Sanja et al ., (2014) Refers to the subscriptions to a public mobile telephone service and provides access to Public Switched Telephone Network (PSTN) using cellular technology, including number of pre-paid SIM cards active during the past three months. This includes both analogue and digital cellular systems (IMT-2000 (Third Generation, 3G) and 4G subscriptions, but excludes mobile broadband subscriptions via data cards or USB modems. Subscriptions to public mobile data services, private trunked

Mobile Cellular Subscriptions: Prepaid

Mobile radio, telepoint or radio paging, and telemetry services should also be excluded. This should include all mobile cellular subscriptions that offer voice communications. Telephony except that it allows ease of use, has much more widespread coverage and also, in the long run, makes cheaper telephony possible. Internet telephony, also again no different in use and enabling possibilities, is set to make telephony all over and across the world extremely economical. Internet radio again provides much greater variety and reach than ever before. Broadband is expected to make TV over the Internet common place.

METHODOLOGY

Research Design, Target Population, Sample Size

This research used a case study approach of descriptive research design. Its is a best method for collecting original data for the purpose of describing phenomena in population by focusing on certain focused group (Mugenda and Mugenda, 2003). In this design, information concerning opinions or practices was obtained from sample of population which was considered as representative, through the use of questionnaire technique. Target population :The study focused on all lower cadre permanent employees of Mau Tea Multipurpose cooperative society ltd from which the respondents were drawn. It covered two main areas: those working in the factory and those working in the estate. The researcher target a population of 249 employees in Mau Tea Multipurpose cooperative society ltd. From 249 employees, 154 respondents were sampled basing on the formula $n = N / (1 + N (e)^2)$, Yamane (1967:886).

This researcher utilized simple random sampling technique to collect data. A lottery approach was used where names of the subjects or objects in the population were written down on pieces of paper and put in a container. Data collection methods and procedures employed questionnaires with most closed ended items designed in a likert scale. The questionnaires used in the study had mixed items. These were used to collect data from all the respondents. Open-ended questionnaires have advantage in that they permit greater depth of response and are also simpler to formulate. Validity and Reliability: A study research instrument must be both valid and reliable. Validity is the accuracy and meaningfulness of inferences, which are based on research results (Mugenda, 2003). The validity of the instrument is acceptable if it produces consistent data.

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials (Mudgenda&Mugenda, 2003). An instrument is reliable if it measures what is supposed to measure. For this to be achieved, piloting was done in one purposively selected private tea sector; a pre-test (Test-Retest method) was carried out in one of the private tea company, Kaisugu Tea Ltd. A pilot study helps to test the feasibility of the study techniques and to perfect the questionnaire concepts and modify them (Kombo& Tromp, op cit).

ANALYSIS, FINDINGS AND CONCLUSIONS

The study utilized first-generation (1G) techniques, which includes correlations, Pearson Chi-square, Regressions and difference of mean tests. Results from (Table 4.1) on regression model, shows that when all independent variables are kept constant on Employee savings, $b = 4.885$. The interaction of variables indicate that a unit increase in Mobile Network Operations caused a decrease (negative) on Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd by a factor of $- .166$; a unit increase in ATM use variable would cause an increase on Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd a factor of $.276$; a unit increase in ITK variable would cause an increase on Employee savings by a factor of $.140$ and a unit increase in IA would cause an increase on Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd by a factor of 419 .

Coefficients (representing the relationships between variables) were estimated by standardizing the regression weights coefficients (Yuen 2007). Residual or error terms (represent by e) are exogenous independent variables that are not directly measured and reflect unspecified causes of variability in the outcome or unexplained variance plus any error due to measurement (Lleras 2005).

This study established that there was strong relationship between IT knowledge and Internet access on the Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd by (.601) and it was also established that there was a weak effect between Employee savings and Mobile Network Operations ATM use on Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd. At the same time, study by Morris et al., 2012; Venkatesh et al., (2003) indicate that in concert with on Employee savings among the lower can further moderate the relationship between Mobile Network Operations , ATM use, IT knowledge and Internet access on Employee savings.

This is because when consumers have not developed their knowledge and skills (i.e., when they have less experience), the impacts of IT knowledge and Internet access on on Employee savings were more significant than when they have acquired enough knowledge or expertise about the technology (i.e., when they have more experience). The dependence on Mobile Network Operations and ATM use was greater importance to Employee savings in the early stages of technology use because as discussed earlier, they place greater emphasis on reducing the learning effort required in using new technology. According to Ananda,(2010) a Standardized Regression Weight is also known as a Factor Loading, while Squared Multiple Correlation is said to Negligible effect ($\beta < .05$) and Low effect ($\beta = .10$ to $.40$). Sanja M., (2017) in his study, argues that a standardized coefficient (β) generated should follow a mathematical series of coefficient on incremental level with expressions :Negligible effect ($\beta < .05$) , Low effect ($\beta = .10$ to $.40$) moderate effect ($\beta = .40$ to $.55$) ,Strong effect ($\beta = .55$ to $.70$) and Excellent effect ($\beta = < .80$).In this study apart from ATM ,whose β (32 %) is rated as low effect and MNO which recorded a negative effect , ITK and IA as constructs yielded strong effect (Sanja ,M., , 2017, p162).

(H0)	Null Hypotheses	Results (Chapter 4)
H0 ₁	Mobile Network Operations has no significant influence on Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd	MNO, $\beta = -.422$ (42.2 % negative), Sig.21 Null hypothesis was accepted , has no support to employees savings
H0 ₂	ATM use has no significant influence on Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd	ATM, $\beta = .321$ (32 %) sig .000,Null hypothesis was rejected , has support to employees savings
H0 ₃	IT knowledge has no significant influence on Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd.	ITK, $\beta = .512$ (51.2%) sig 0.002,Null hypothesis was rejected , has support to employees savings
H0 ₄	Internet access has no significant influence on Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd.	(IA), $\beta = .458$ (45.8%) sig .003, Null hypothesis was rejected , has support to employees savings

FACTOR LOADING, CRONBACH ALPHA AND ANTI IMAGE CORRELATION ON EMPLOYEE SAVINGS

Results for three external variable : ATM use , IT knowledge and Internet access on Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd indicated that their factors are loaded together indicating that three variables have greater weight on Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd and had strong contribution on Employee savings but Mobile Network Operations was the least performed as a predictor : (f1 0.579, α 0.690 and ai 0.63), followed by

Internet access (IA) Conditions with (fl 0.702 , α 0.710 and ai 0.690); then by Technical Operation Skill with (fl 0.6841, α 0.891 and ai 0.720).However IT knowledge (ITK) as a predictor was the best since it loaded highly hence the variable had the best weight as predictor compared to other predictors : (fl 0.978, α 0.901 and ai 0.861(Table 4.2).The sample of partial correlation for Mobile Network Operations was not appropriate because it posted values closer to the mediocre level (Cheng, Liu and Qian , 2008; He and Lu 2007; Wu, Tao and Yang , 2007).

Employee savings but Mobile Network Operations was the least performed as a predictor : (fl 0.579, α 0.690 and ai 0.63) while IT knowledge (ITK) as a predictor was the best since it loaded highly hence the variable had the best weight as predictor compared to other predictors : (fl 0.978, α 0.901 and ai 0.861(Table 4.2)

Table 4.2: Results of Employee savings by Factor Loading,Cronbach alpha and Anti Image Correlation

VARIABLES	FACTOR LOADING(fl)	ALPHA (α)	ANT-IMAGE(ai)
Mobile Network Operations(MNO)	0.579	0.690	0.63
ATM use(ATM)	0.928	0.831	0.818
IT knowledge(ITK)	0.978	0.901	0.961
Internet access(IA)	0.702	0.710	0.690

Studies by (Ramayah et al, 2010) indicate that all factors loaded together across the sampled countries, although some constructs had different amounts of influence in some samples. For example, social influence variable only emerged for the Saudi Arabia sample, indicating that this variable has greater weight on website acceptance in that country than in the other countries sampled. On the other hand, the anxiety variable did not load only for the Czech sample indicating that anxiety is not a strong influence on website acceptance in that country

Internet access (IA) Conditions with (fl 0.702 , α 0.710 and ai 0.690); then by IT knowledge (ITK) with (fl 0.6841, α 0.891 and ai 0.720).However IT knowledge (ITK) as a predictor was the best since it loaded highly hence the variable had the best weight as predictor compared to other predictors : (fl 0.978, α 0.901 and ai 0.861(Table 4.2). The sample of partial correlation for Mobile Network Operation. This study is similar with that done by Wang et al., 2012), which established that the Internet access provider is an important factor in the establishment and maintenance on Financial Employee savings. The support comes mainly from the Internet access and Mobile Network Operation which are reliable services to ATM operations (Zhang et al., 2015).

CONCLUSION

The support comes mainly from the Internet access and Mobile Network Operation which are reliable services to ATM operations (Zhang et al., 2015). The sample of partial correlation for Mobile Network Operations was not appropriate because it posted values closer to the mediocre level. This study established that there was strong relationship between IT knowledge and Internet access on the Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd by (.601) and it also established that there was a weak effect between Employee savings and Mobile Network Operations ATM use on Employee savings among the lower cadre employees in Mau Tea Multipurpose Cooperative Society Ltd.

RECOMMENDATION

Recommends: There is need for research to employ bigger sample size to carry out further research and the study recommends further research on Mobile Network Operations to establish its poor response and low support towards employee savings on clients.

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