EFFECTS OF MOBILE BANKING SERVICES ON THE
FINANCIAL BEHAVIOR OF UNIVERSITY STUDENTS:
A CASE OF UNITED STATES INTERNATIONAL
UNIVERSITY - AFRICA

BY

GITAU, ANTONY NJENGA

UNITED STATES INTERNATIONAL UNIVERSITY -
AFRICA

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Business in Partial Fulfillment of the Requirements for the Degree
of Master of Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY-
AFRICA

FALL 2018
STUDENT DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University-Africa in Nairobi for academic credit.

Signature __________________________                 Date____________________

Gitau, Antony Njenga (ID NO: 639817)

This project has been submitted for examination with my approval as the University Supervisor.

Signature __________________________                 Date____________________

Mr. Kepha Oyaro

Signature __________________________                 Date____________________

Dean, Chandaria School of Business
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ABSTRACT

The general objective of the study was to investigate the effects of mobile banking on the financial behavior of university students. The study was guided by the following specific objectives; to establish the effects of mobile banking services on the saving behavior of university students, to establish the effects of mobile banking services on the spending behavior of university students, and to establish how to improve the financial behavior of university students.

The study adopted the use of descriptive research design as aided in identification of the type of association, defining complex associations of multiple factors that account for the outcome and forecasting an outcome from different predictor variables. The study focused on 370 undergraduate students in United States International University- Africa from various academic years which include: freshmen, sophomores, juniors and seniors. This study used the stratified random sampling technique. For the study, the researcher used questionnaires to collect data from the target population as a source of primary data. The data was coded by attaching numerical values to every qualitative data. The responses were then coded, and entries made into Statistical Package for Social Science (SPSS ver.25). The data was analyzed using both descriptive and inferential statistics such as, correlation and regression and was presented in percentages, tables and graphs.

The findings on the first objective indicated that saving behavior has a strong positive correlation with mobile banking services. Financial services, such as savings, are more accessible via mobile banking as compared to walking to the bank which has allowed more students to have a virtual mobile bank account that is only accessed and operated via a mobile phone. This ease of accessibility has led to more savings among the students.

The findings on the second objective showed that there was a positive correlation between spending behavior and mobile banking services. This indicated that the use mobile banking services among the university students have increased due to enhanced platform. Majority of the students agreed that the use of mobile banking has highly fueled their spending habits as they can access their funds and loan facilities on their mobile phones as compared to physically walking to the banking halls.

Thirdly, there was a strong positive correlation between financial behavior and mobile banking services from the study findings. It was noted that financial instruments like
savings accounts available on mobile banking services enabled students to be able to budget and save their funds more efficiently and consistently. It was also realized that students who use mobile banking services were exposed more to financial management skills.

In conclusion on the first objective, the use of mobile phones has been the main driving component of the mobile banking initiative and behavioral patterns of students influence on saving behaviors. Secondly, lack of financial education can result to wasteful spending behaviors among university students. Students are more concerned in accumulating material possessions which lead to making poor purchasing decisions among students. Lastly the study concludes that financial education is a key aspect in today’s financial environment as it provides relevant tools to make prudent financial decisions which improves student’s financial behavior.

The study recommends on the first objective that mobile banking operators should have specific accounts, with higher interests, for students to encourage them to save more. Secondly the study recommends that university students should be taught on preparing budgets so as to help them to be strategic with funds as students are able to evaluate spending in comparison to savings. Lastly the study recommends that policy makers should provide trainings to improve the financial behavior among the students so that they can be prudent when it comes to financial management. On further studies, the study recommends on effects of mobile banking on the financial behavior of university students in both private and public universities.
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Thirdly, I would also like to express my sincere appreciation to my beloved parents and brothers. Your constant reassurance was a source of strength to me.

Lastly, I thank my colleagues for their encouragement all through. May God Bless You.
DEDICATION

This project is dedicated to my parents for their love, support, understanding and encouragement throughout the preparation, execution and compilation of this research project.
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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>4G</td>
<td>Fourth Generation of Broadband Cellular Network Technology</td>
</tr>
<tr>
<td>ATM</td>
<td>Automatic Teller Machine</td>
</tr>
<tr>
<td>CTF</td>
<td>Child Trust Fund</td>
</tr>
<tr>
<td>DFID</td>
<td>Department of International Development</td>
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<tr>
<td>FINDEX</td>
<td>Financial Inclusion Database</td>
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<tr>
<td>GNDI</td>
<td>Gross National Domestic Income</td>
</tr>
<tr>
<td>GSMA</td>
<td>Groupe Spéciale Mobile Association</td>
</tr>
<tr>
<td>HM</td>
<td>Her Majesty's</td>
</tr>
<tr>
<td>MBA</td>
<td>Master of Business Administration</td>
</tr>
<tr>
<td>NACOSTI</td>
<td>National Commission for Science, Technology and Innovation</td>
</tr>
<tr>
<td>NCEE</td>
<td>National Center on Education and the Economy</td>
</tr>
<tr>
<td>NEFE</td>
<td>National Endowment for Financial Education</td>
</tr>
<tr>
<td>OBM</td>
<td>Opportunity Bank Malawi</td>
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<tr>
<td>PDA</td>
<td>Personal Digital Assistant</td>
</tr>
<tr>
<td>SEED</td>
<td>Saving for Education Entrepreneurship and Down</td>
</tr>
<tr>
<td>SMS</td>
<td>Short Message Service</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for Social Science</td>
</tr>
<tr>
<td>TRY</td>
<td>Tap and Reposition Youth</td>
</tr>
<tr>
<td>UNCDF</td>
<td>United Nations Capital Development Fund</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations International Children's Emergency Fund</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>USIU-A</td>
<td>United States International University - Africa</td>
</tr>
<tr>
<td>WOCCU</td>
<td>World Council of Credit Unions</td>
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Problem

Xiao (2008), describes financial behavior as any human behavior that is relevant to money management. Common financial behaviors include cash, credit, and saving behaviors. According to Family Economics and Financial Education (2010), saving is defined as a portion of one’s disposable income not spent now but later in the future on emergencies or unexpected occurrences. These unexpected occurrences can be medical emergencies, vehicle breakdown or even unexpected fines. Lack of a proper implemented saving mechanism can result to one being faced by huge financial burdens which might stress and interfere with their day to day life. Therefore, saving can help ensure one’s financial security in the future (Family Economics & Financial Education, 2010). Saving can be in various aspects, either investment in money or capital markets, simple bank deposits, mobile money saving or purchase of fixed assets like land. Mandell and Klein (2009) describe saving as the act of consuming less of the available resources now to enjoy more later.

According to Loayza, Schmidt and Servén (2000) the saving rates around the world vary widely. On average East Asia saves more than 30 percent of gross national disposable income (GNDI), while Sub-Saharan Africa saves less than 15 percent. This has been doubling in East Asia while the same has stagnated in Latin America and Sub-Saharan Africa. The lack of financial literacy of the U.S. population was one of the major causes of the financial crisis of 2008 as many Americans entered into mortgage loan agreements they did not understand and could not afford (Martinez, 2016). Lack of financial literacy among students in college has heavily contributed to the increased student loan indebtedness. Coy (2012) observed that student loan debt according to the U.S. Financial Protection Bureau reports, increased rapidly to over one trillion as other forms of debt decreased. This shows that lack of basic financial skills on a personal level need to be improved.

The world’s population consists majorly of youth who if well harnessed economically can yield a significant economic growth (Bloom, Canning, & Sevilla, 2003). Even though the
youth have the numbers in the population, they are still faced by various economic challenges like underemployment and unemployment. These challenges combined by poor financial saving skills contributes to a stagnant economy.

Money Advice Service (2015) defines financial well-being as the state of physical and emotional stability based on one enjoying the quality of life by applying financial skills and capabilities to manage one’s income, both daily and for the future. Financial well-being comprises of both subjective and objective measures which focus on whether individuals can enjoy their income irrespective of earning levels and individual spending behaviors in respect to their needs respectively (Cox et al., 2009). The young generation has become more vulnerable with the availability of personal credit cards, substantial pocket money, access to family member credit cards and some obtaining high-paid jobs (Pillai, Carlo & D’souza, 2012). This easy access to legal tender has made the youth to be reckless spenders.

Strategic marketers have resulted into developing products that target this young generation knowing their desire in latest fashion design, technology, video games, music and access to malls (Pillai et al., 2012). Easy access to information through the widespread use of the internet has resulted to marketers capturing a significant number of youths making online purchases. According to a study by Lyons (2004) and Nellie (2005), youth in the United States are spending over $172 billion annually resulting to them being the target for credit card companies. This uncalculated spending by the American youth has affected them psychologically as they end up having poor credit scores, defaulted loan payments and possibly bankruptcy (Consumer Federation of America, 1999).

With the dawn of the era of consumerism and the marketing mania, wants are tremendously exceeding needs and it has been widely observed that widespread consumerism and westernization have lured the people into spending their earnings at an alarming rate. The poor saving culture of the Youth in America can be directly associated to the consumerism culture of the average American who reflects relatively weak saving habits that have been taken on by the youths (Norvilitis, Szablicki & Wilson, 2003).

Consumerism culture has also affected developing countries. Salam and Kulsum (2002) observed that youth in South Africa were rooted to a culture of consumerism, with the need for instant gratification, in the form of trending fashion, latest technology and dining
in high end food outlets. With aggressive advertising and constant designing of products to target the youth, has further fueled the consumerism behavior among the youth. As the youth are vulnerable to spending and can barely distinguish between wants and needs, tend to fall prey to this manipulative trend and the culture of material consumption. One of the many challenges facing the National Youth Development Agency in South Africa is trying to get the youth to understand the difference between a need and a want (Munanda, 2017).

According to Munanda (2017) over 12.5 million South Africans experience financial difficulties as about 60% of the adult population claim that they currently do not have any savings. South Africa, having a high level of financial inclusion has a low level of savings as per the latest Finmark report. The report also claims that high levels of consumerism highly contributes to the low levels of savings (Munanda, 2017).

A study by the UN Capital Development Fund (UNCDF) on the financial habits of the young generation revealed that youth in Uganda save money mainly for emergencies like school supplies and fees and food and clothing (Kilara, & Latortue, 2012). On the other hand, the older generation of the youth save for similar reasons but with time their list of needs and wants increase as they are influenced by the consumerism culture (Kilara & Latortue, 2012). As the youth continue to grow older their needs graduate as some will have started families hence, they will be required to save up for their families. Even though the older generation of youth are more exposed to more financial opportunities, a majority of them earn lower incomes in comparison to their older counterparts, therefore, have a limited ability to save even if they are willing (Munanda, 2017).

The Harmonized Nigeria Living Standard Survey of 2009/2010 found out that there is a high consumption rate of food produce. Nigeria consumes over N25 billion worth of daily food produce which is about 65% of the total expenditure (National Bureau of Statistics, 2012). According to Olusoji (2003) the more a society spends on food the less developed the society becomes as money not spend on consumption products is saved to provide the resources that are needed for investment. Capital is increased by spending less and reduced spendthrifts and misconduct (Smith, 1776).

There is a high population in Nigeria that leaves below poverty line and not because of poor salaries or low income but because of poor investments and savings culture (Zimbio, 2010). According to the department of International Development- DFID (2012) over 34
million of the adult population in Nigeria does not save. The tendency to save cannot be compared to the tendency to consume. It is therefore, up to the Nigerian populace to change their mentality on saving and investment by re-orienting themselves into a saving culture.

In Kenya there is also a growing rate of consumerism among the middle-class economy which makes about 30% of the nation’s economy (Ngugi, Amanja & Maana, 2009). Just like other developing countries, the young generation strive to have the latest trending fashions in both electronics and clothing with an aim of fitting in the society. Youth Save (2012) discovered that the key reason as to why the youth are unable to save is because they associate themselves with luxurious lifestyles of frequently partying, eating out at expensive establishments which at times may go beyond their spending capabilities. This is because of poor financial training among the youth. Little to no effort has been made over time to ensure proper training of the youth by the government. According to Beverly and Burkhalter (2005) basic education systems barely provide a detailed financial module making financial management skills a rather foreign phenomenon among the youth.

Creation of unique digital platforms have been able to fill in this gap. To enhance youth financial literacy development of innovative solutions have been created. Bankaroo, a very interactive and social app, enables parents to be able to transfer funds to their children as allowance which in turn the children are left to plan their expenses and savings on the application which enhances financial literacy (Byers, 2015). Bank programs, credit unions and other financial institutions provide trainings that encourage students to open savings accounts and even indulge in asset investment. (Board of Governors of the Federal Reserve System, 2015).

Cheruiyot, Kimeli and Ogendo (2012) discussed how African countries unhealthy financial culture deprives them the ability to develop financially. With the introduction of aid programs in Africa many countries neglected personal savings. This is evidenced by the increased huge dependence on financial grants and loans that have created a dent on the saving culture of Kenyans. This situation is similar in Kenya as the government relies heavily on loans, grants, donor help to cover its financial burdens. Households tend to take a similar trend which in turn affects the youth who are yet to develop a saving culture (Munanda, 2017).
Johnson, Lee, Ansong, Chowa, Osei-Akoto, and Sherraden (2015) revealed that financial institution policies influence heavily the saving culture among the youth. For instance, a state like Nepal allows the youth of age 16 to own and operate a bank account by their own hence grooming them for financial independence and enabling them to develop a saving culture at a young age. On the other hand, Kenya and Ghana financial institutions allow youth below the age of 18 to open accounts with adults as cosignatories hence limiting their freedom but the opportunity to co-hold an account allows the young to save. Ghana and Kenya according to Johnson et al. (2015) have 56% and 47% non-relative cosignatories to minor’s accounts respectively. This participation allows the youth to participate on financial saving.

As per UNCDF (2012) majority of the youth have been observed to be saving informally rather than participating in formal banking. In Kenya for instance, several youth use M-Pesa (Mobile banking application) to manage their money which they may not necessarily be able to manage well since their freedom is not restricted like in savings accounts where one may only be allowed to withdraw quarterly or every six months (Demombynes & Thegeya, 2012). While young people may want to engage in formal banking, some of these youths may be hampered by policy barriers, issues of geographic access, service fees, issues of documentation, and transparency in banks (Johnson et al., 2015).

1.2 Statement of the Problem

In a study by Anyasi and Otubu (2009), they noted that in an effort to reach more customers who cannot access regular banking services, mobile banking was adopted with an aim of bringing the most basic services like fund transfer to the customers. According to Coderias (2017), mobile banking has greatly influenced the financial behavior of university students as it has made access to one’s bank account easy and first as there is no need to physically visit a banking institution to access banking services. This has increased the efficiency of accessing funds in the bank as evidenced by the increased rate of spending among the youth via mobile banking purchases (Ngatia, 2013).

There are various research studies conducted on the effects of mobile banking on financial behavior of university students. Ngatia (2013) studied the impact of mobile banking on consumer behavior among executive MBA students in Kenya and discovered that mobile banking was majorly used by students when conducting their financial
transactions. Coderias (2017) examined the impact of mobile banking on commercial banks and by using a descriptive research design focused on the factors that influence mobile banking in Kenya, to establish how mobile banking has influenced the reduction of transaction costs in banking, and the effect of mobile banking on financial accessibility. Odera (2008) and Sachombe (2017) examined mobile banking adoption in the banking industry in Kenya and the findings revealed that convenience of the service was the most influencing factor affecting mobile banking.

Many studies on mobile banking have been conducted on the perspective of financial institutions. Bonke (2015) studied customer adoption of mobile banking and perceived quality of service in commercial banks in Kenya. Rono (2014) studied the relationship between perceived ease of use, perceived usefulness, behavioral intention to use and acceptance of mobile banking services: the case of commercial banks in Kenya. Mutua (2010) studied the effects of mobile banking on the financial performance of commercial banks in Kenya. In order to fill that gap this study will be focused on the effects of mobile banking services on the financial behavior of university students by investigating various variables such as, saving behavior, spending behavior and how to improve the financial behavior of university students.

1.3 General Objectives

The general objective of the study was to investigate the effects of mobile banking on the financial behavior of university students.

1.4 Specific Objectives

1.4.1 To establish the effects of mobile banking services on the saving behavior of university students.

1.4.2 To establish the effects of mobile banking services on the spending behavior of university students.

1.4.3 To establish how to improve the financial behavior of university students.

1.5 Significance of the Study

1.5.1 The Youth
The study will enlighten the youth in enhancing their saving habits. It provides insight on various ways on how to prudently manage funds among university students.

### 1.5.2 Policy Makers

The findings from this study will assist policy makers in designing policies aimed at improving financial behavior among university students.

### 1.5.3 Academicians and Future Scholars

The study will be of great help to academicians and scholars it will provide literature that can be used for future research on the same topic or related topics.

### 1.6 Scope of the Study

The population of the study was students aged between 18-35 years in United States International University- Africa (USIU). The study population was undergraduate students who were 5055 enrolled in the undergraduate programs. The study was to investigate the effects of mobile banking services on the financial behavior of university students. The study was covered from the month of April 2018 to September 2018.

### 1.7 Definition of Terms

#### 1.7.1 Mobile Banking

According to Anyasi and Otubu (2009), Mobile banking or m-banking can be defined as the use of mobile devices such as mobile phones or tablets to execute banking transactions.

#### 1.7.2 Transaction Costs

Huberman, (1990) described a transaction cost as a cost that gained in making an economic exchange.

#### 1.7.3 Financial Behavior

According to Xiao (2008), financial behavior is any human behavior that is relevant to money management. Common financial behaviors include cash, credit, and saving behaviors.
1.8 Chapter Summary

This chapter has given a detailed description of the purpose of the study, the background of the study, statement of the problem and the scope of the study. It has also highlighted the key beneficiaries of the study. The research questions have been stated and the problem statement identified in this chapter. The next chapter which will review previous literature done and will seek to establish conclusions that was drawn from studies on mobile banking services and its effect on the financial behavior of university students.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

The chapter presents the literature review on the mobile banking services and its effect on the financial behavior of university students through the following research objectives: to establish the effects of mobile banking services on the saving behavior of university students, to establish the effects of mobile banking services on the spending behavior of university students and to establish how to improve the financial behavior of university students.

2.2 Effects of Mobile Banking Services on the Saving Behavior

In the economic context saving is well defined as the disposable income after current consumptions have been deducted over a set period (Browning & Lusardi, 1996). On a psychological perspective saving is equally defined as the process of not spending funds now in order to be used in the future (Warneryd, 1999). Generally, saving behavior is the combination of a saving need, a saving decision and a saving action. Majorly people define saving as depositing funds in the bank, investing, paying off mortgages and speculation (Warneryd, 1999).

With increased innovation in the telecommunication industry, new services have been developed in the banking sector. One of these services is mobile banking and according to Laukkanen and Pasanen (2007), it is a channel where a customer interacts with the bank via a mobile device, like a personal digital assistant (PDA) or mobile device. The access to banking services via mobile banking was first introduced in Finland by Merita Nordbanken (currently Nordea) over a decade ago to enable customers to make basic payments and check their account balances through SMS service on their mobile phones (Laukkanen & Pasanen, 2007). Mobile banking’s vast market potential, due to its opportunity to bank virtually anywhere and anytime, has resulted in the evolution of the service today. The services include enabling a customer access to check their account balance and previous transactions, pay bills, transfer funds between accounts, monitor the use of both debit and credit cards and purchase and sale of stock in the stock exchange market (Kasyoki, 2012).
2.2.1 Mobile Banking Savings Accounts

According to Kreyer, Pousttchi and Turowski (2002), mobile phones are the main driving component of the mobile banking initiative. Munanda (2017), discovered that there is a great growth of the usage of mobile phones to conduct mobile banking even in states that barely have adequate infrastructure as the service has created important aspects of efficiency and convenience. Laukkanen and Pasanen (2007) describe mobile banking as the most important value-added mobile service.

The quick growth in technological advancement, increased competition in the banking sector from non-financial organization, globalization, and product inventions has heightened the competition for the banking sector customers (Mattila, 2004). In response, financial service providers have become even more interested in the behavioral patterns and needs of their customers, with an aim of remaining competitive in the financial market industry (Debadutta, 2012). In the study of Middle East banks adoption of technology, Negash (2011) noted that there was a high increase of adoption of technology by banking institutions.

The continuous growth of communications industry and global connectivity has vastly influenced the movement of information by shrinking the world of business into a desktop computer (Ngatia, 2013). Debadutta (2012) noted that mobile phones have evolved in numerous ways. Presently, the speed at which business transactions are conducted is so fast that little to no time wasted, resulting to timely transactions and rapid growth of the economy (Hamidi, 2012). Every day, the world population is vastly searching for various ways of simplifying and improving the day to day processes of doing everything (Debadutta, 2012). Over the past decade, mobile technologies have become extensive in the Sub-Saharan Africa. A report by GSMA Mobile Economy (2017) Intelligence states that even though there is increased poverty levels and low infrastructure development in the region, over 42 percent of the population had subscribed to a mobile phone service as of 2016.

As majority of university students are young adults, most of them own a mobile device which is majorly due to the low cost of the mobile handsets and peer influence from their colleagues (Pillai et al., 2012). Financial saving therefore, has become more accessible via mobile banking as there is no need to physically walk to the bank as it was
traditionally. Mobile money, a form of mobile banking, is a service that practically allows users to have a virtual bank account that is only accessed and operated via a mobile phone (Maurer, 2012). Examples of mobile money in Kenya include M-Kesho and M-Shwari. Mobile money savings account is a banking service that allows the account holder to borrow and save funds through their mobile phones while earning an interest on their savings (Wamuyu, 2014). Students therefore, can put their funds into the savings account easily and get an interest on their deposits.

Mobile money accounts were first introduced in Kenya in 2010 when M-Kesho savings account was developed by Equity Bank (a commercial bank in Kenya), where customers could easily transfer funds from their M-Pesa (a mobile money transfer system) accounts to their M-Kesho accounts (Wamuyu, 2014). This account was free to open, had no minimum or operating charges, and would pay interest on deposits. The service was mainly intended to capture the unbanked mobile phone users who had no access to bank accounts. Gakure, Anene, Arimi, Mutulu, and Kiara (2013) conducted a study that indicated M-Kesho failed to succeed in the market due to its tedious registration procedures and its unsupportive staff who mainly served M-Pesa clients as compared to M-Kesho clients resulting to the decline of the service users.

Safaricom (the largest communication company in Kenya) and Commercial Bank of Africa (a commercial bank in Kenya) partnered up to create M-Shwari, a savings account that is offered through M-Pesa. This paperless new banking service enables a customer to open and operate an M-Shwari savings account through their mobile phones without the need of visiting a bank or filling any forms (Wamuyu, 2014). This savings account allows customers to be able to move funds to and from their M-Pesa accounts at no cost. Unlike M-Kesho, M-Shwari has reduced registration procedures and is fully supported by the service agents countrywide (Gakure et al., 2013).

2.2.2 Saving Behavior of Students.

Saving accounts among the youth, has had a great influence on different regions of the world, since its inception (Munanda, 2017). Since the inception of Child Trust Fund (CTF), in the United Kingdoms in 2005, encouraging and advising the youth to develop a saving culture, appreciate its benefits, and involve themselves with financial institutions has been its main objective. By the end of 2009, subscription to the fund had exceeded $4 million in which 72% of low-income individuals had interest in the fund (Kempson, Atkinson, &
Collard, 2006). According to HM Revenue and Customs (2008), in the period between 2007 and 2008, over 24% of all account holders had made extra investment into the fund. Also, accounts opened for low income children, 31% had made additional contributions (Masa, Sherrard, Zou, Ssewamala, Johnson & Ansong, 2010). Saving for Education, Entrepreneurship, and Down (SEED) program in the United States confirmed that young account holders could also invest in savings account (Sherraden & Clancy, 2005). This is vivid by the large number of participants, who mainly consisted of the youth and children from low income families, who had accumulated over $1.75 million. On average each participant had $1,500 in investment (Mason et al., 2009).

In Mexico, youth empowerment has also been observed by the largest credit union, Caja Popular Mexicana, undertaking new programs to offer financial education to youth savers (Munanda, 2017). Within a span of four years the union had over 180,000 youth saving accounts (WOCCU, 2006). Like Mexico, Guatemala introduced youth savings accounts via a credit union system in 1996. Vigorous campaigns directed to the youth by the end of 2001, resulted to around 22% of over 400,000 registered members in 28 credit unions consisted of the youth and they made over $780,000 contribution to the savings accounts (WOCCU, 2001).

In 2007, Fundisa Fund a product developed by the government of South Africa in partnership with private corporates, was engineered to be a savings program that interest and rewards to children and their families for investing for tertiary education (Munanda, 2017). Low income families were offered a chance by the savings program to invest their children’s tertiary education for as little as $5 monthly by the end of the first year over 2,700 guardians and parents had enrolled to the program (Fild, 2009).

In Burkina Faso, majority of the population has no access to formal financial services like savings accounts therefore, majority of the populace relies on informal ways of saving to manage their funds (Munanda, 2017). As a result, numerous initiatives have been undertaken to promote mobile banking by the financial sector of the state. Morawczynski (2009) noted that mobile banking acted as a complementary to other saving mechanisms as witnessed by a number of the service users using their savings accounts to separate their personal and business savings, while others transfer their funds from their bank accounts to save in their mobile savings account.
In Kenya, youth savings account targeted for young girls and women with low income was first launched by Tap and Reposition Youth (TRY) in 2001. According to Erulkar and Chong (2005) the average number of investors in the program doubled their deposits over time as by the end of 2004 members of the project had higher amounts in savings as compared to the non-participants. In Uganda the same project was tested on orphaned youths and the results indicated that 132 contributors could save a total of $3,727 per year which was more than for non-contributors (Ssewamala & Ismayilova, 2009).

2.3 Effects of Mobile Banking Services on the Spending Behavior

College students manage their funds based on a number of factors such as their personal traits, age and acquired knowledge (Norvilitis, Merwin, Osberg, Roehling, Young and Kamas, 2006). According to Micomonaco (2003) restricted incomes and high expenses put college students in a unique situation resulting to them managing their funds differently. The youth today live in the fantasy of living in a materialistic world where they aspire to own expensive houses, having the right body shape, securing top notch jobs with plump salaries and owning high end possessions (Beutler et. al., 2008). Poor financial education during childhood can result to wasteful spending behaviors when teenagers and young adults are employed in temporary or part time jobs (O'Malley & Bachman, 1983; Roberts & Jones, 2001). University students tend to spend their income on wants rather than needs for instant gratification (Pillai et al., 2012).

A study was conducted by Hibbert, Beutler and Martin (2004) to identify if the financial prudence of parents and their attitude towards managing their finances affected their children. Through a hypothesized model, the study emphasized that financial prudence of parents during early childhood of their children would affect their children’s financial planning when they are young adults. Chen and Volpe (1998) examined university students’ skills on personal finance, the relationship between financial literacy and their demographics like gender, experience and the influence of the students’ literacy on decisions and opinions made. Over the years there has been a recurrent debate concerning the issues college students face when handling their credit cards. The media on the other hand have fueled the situation by maintaining that students are sunk in debt, fall victims of tenacious marketing techniques and are helpless over the temptation of credit cards (Staten & Barron, 2002). Student spending behaviors is a mushrooming predicament that affects a large number of students.
2.3.1 Factors that Influence Mobile Banking.

According to Ngatia (2013), consumer buying decisions are usually influenced by many factors. Most consumers will consider the usefulness, reliability and whether the product will enhance efficiency. Therefore, if a consumer trusts that a product will increase efficiency and performance, they will make the purchase (Argrawal, 2010). When faced with the decision to use a banking facility, many consumers will consider, perceived usefulness (Argrawal, 2010), ease of use awareness (Hamidi, 2012), perceived cost (Mattila, 2004) and goal for use (Wamuyu & Maharaj, 2011) among other factors.

Mobile banking in Kenya is affected by the following factors:

2.3.1.1 Security and Ease of Accessibility.

Coderias (2017) describes mobile banking as a platform that provides banking services to its customers regardless of their location. The simplicity of the service has made it easy to enroll and use and it is available to every mobile phone user. Availability of portable mobile phones has highly eased the need to bank and save on time (Ngatia, 2013).

One of the security features of the service is the use of a mobile pin number. The pin number is securely issued by the bank to the customer which in-turn the latter can change as many times as they may want to ensure optimum security (Ngatia, 2013). Once the setup is complete the customer can directly access, view and control all transactions through the mobile banking service (Argrawal, 2010).

2.3.1.2 Speed and Cost.

Wamuyu (2013) established that use of mobile banking as a banking option is cheaper than other banking facilities. For example, there are reduced charges when making transactions when using mobile banking as compared to a service like ATM (Automatic Teller Machine).

The advancement in communication technology has resulted in the development of the 4G service which is a faster way of data transmission. This has resulted to increased speeds in the use of mobile services like mobile banking (Ngatia, 2013). For example, traditionally one would make long tiresome queues in the banking hall to make cash withdrawals or deposits but with the availability of mobile banking one can simply
transfer funds at the comfort of their homes through their mobile phones or visit the numerous mobile banking agents spread all over the country (Ngatia, 2013).

2.3.1.3 Compatibility, Ease of Access to Accounts and Universal Acceptability.

Mobile banking is widely accepted as all banks recognize the facility, therefore, a customer can access and control their bank accounts anywhere within the country via their mobile devices (Kasyoki, 2012). Amin, Hamid, Tanakinjal and Lada (2006), described credibility as a component of behavioral intention to use an information system. Mattila (2003) believes that providing a service that well meets a consumer’s requirements will enable mobile banking implementation. Therefore, compatibility of a new technology, should be well suited with the job requirements, consumer requirements and value system in order for it to be implemented (Argarwal and Prasad, 1998). Wamuyu (2013) notes that it is easier and convenient to check account statements as it is immediate and with only internet and mobile banking.

2.3.2 Spending Habits.

Pillai et al., (2012) discovered that spending in excess of earnings is one of the most common problems facing the young adults. This is vivid by the ‘I want’ philosophy followed by the youth, that is, they are more concerned in accumulating material possessions rather than saving and as a result this leads to the domino effect of making imprudent purchasing decisions which lead to overspending and fund shortage (Pillai et al., 2012). Roberts and Jones (2001) conducted a study focusing on money attitudes and compulsive buying among U.S. college students. They highlighted that the desire to be part of the consuming culture is gravely increasing, especially during the period that credit card usage in the American society is at an all-time high (Roberts & Jones, 2001). Materialistic attitudes held by many college students are the major elements of a consumer culture (Villanueva, 2017). Consumer companies find this sector of shoppers really attractive as evidenced by the annual increase in on-campus solicitations (Villanueva, 2017).

Palan, Morrow, Trapp and Blackburn (2011) deliberate on the issue of credit card misuse among college students, stating that credit cards are associated with student spending. Their findings are in support of the idea that credit cards, just like mobile banking services, encourage compulsive purchase behavior due to their efficiency and ease of use which would not happen ordinarily if the purchases were made by means of cash (Palan
et al., 2011). Norvilitis et al. (2006) discovered that majority of students often do not recognize the implications created by their behaviors. Those with easy access to loan facilities, like credit cards and mobile banking loan facilities, tend to spend less time and more money on purchases (Norvilitis et al., 2006). Easy to obtain loan facilities has highly fueled consumerism culture as many students are highly enticed by the idea of delaying payments (Villanueva, 2017). At the end students are faced with high debts and poor money management.

In 2010, a study conducted by Sabri and MacDonald to analyze the relationship between financial issues and saving behavior of university students in Malaysia indicated that lack of financial experience before joining the university often contributes to poor financial habits. This is vivid by the low financial literacy among the participant of the study who first experienced financial independence at the university level (Sabri & MacDonald, 2010). From the sampled group, majority of respondents spent more than they saved as over a half of the sampled size spent money set aside for education loans and scholarships on personal shopping (Sabri & MacDonald, 2010).

According to Villanueva (2017) the consumer culture is not only growing rapidly in the U.S. but also in both developed and developing economies around the globe. An investigation was conducted by Phau and Woo (2008) to investigate the credit card usage and money attitudes of young adults in Australia using a mall intercept method in a shopping institution. An eight-question survey was issued to participants of the study inquiring about their money attitudes, irrational buying habits, credit card usage, demographics and their various patterns of shopping (Phau & Woo, 2008). The result of this study indicated that the youth attached a high-status value to money.

Spending habits have often been associated with a certain desire of an individual wanting to obtain a certain level of social status (Villanueva, 2017). Phau and Woo (2008) note that there may be different results if the study is conducted in different countries as social and cultural norms vary in various regions. The determinants of whether an individual can save or spend exist in both future oriented and present oriented societies (Villanueva, 2017). Australia being one of the many societies with a blend of numerous cultures, the observed money matters’ attitudes vary (Villanueva, 2017). Intellectual maturation and age are concluded by researchers to be the functions of both behaviors and attitudes towards spending and saving (Phau & Woo, 2008).
According to Munanda (2017), the younger a university student is, the lower they feel inclined to save, as they have less worry towards covering financial costs. Therefore, there will be little attention for accumulated debt as long as there is a constant flow of income (Phau & Woo, 2008). This finding indicates that younger college students are less watchful of covering their expenses now as they anticipate getting employed in the near future which will enable them to repay their outstanding debts over a period of time income (Phau & Woo, 2008). This however, is a sample that was obtained from a single Australian population in a shopping mall and may be affected by unknown environmental factors (Villanueva, 2017). Consumers responses obtained from a shopping mall may be adversely affected by the financial behaviors and attitudes as many participants in the study were planning or are planning to make purchases hence this may influence their views on personal financial habits (Phau & Woo, 2008).

Also, in a study conducted by Furnham (1999) observed the saving and spending habits of adolescents as focusing on the financial behavior of British children may explain the reason college students spend or save money the way they do. Early exposure to certain attitudes and financial behaviors can largely affect the financial behavior later in life therefore, influencing one’s rationale behind spending and saving (Villanueva, 2017). In this study Furnham (1999) issued questionnaires to participants which enquired about their source of income, amount set aside for savings, where it is stored and the purpose for saving.

Gender, age and class are the main demographics used by the researcher as they are highly significant. Most researchers conclude that age is the utmost controlling predictor of saving as the older a child is, the more money he or she is expected to have and save (Furnham, 1999). The researcher also notes that females are better money managers as compared to their male counterparts. Furnham (1999) however, indicates that this could be as a result of differences in socialization, as at some younger age boys are exposed to receiving more money than girls as they are easily allowed to partake in part time jobs. This finding therefore, can explain the gender differences that appear in multiple studies investigating financial attitudes (Villanueva, 2017). There is a separate framework for handling money issues when it comes to gender as both boys and girls have different socialization and upbringing (Villanueva, 2017). Measurement of social class in respect to saving behavior proved to be difficult as majority of the participants were of a middle-
class socioeconomic status therefore, proving difficulty to establish the range of demographics that were initially intended (Furnham, 1999).

2.4 How to Improve the Financial Behavior of University Students

2.4.1 Provision of Financial Education

Munanda (2017) notes that the financial atmosphere faces a rapid increase in complexity to the extent that even the shrewdest consumers have difficulty navigating through the ever-expanding financial services. This therefore, makes it more challenging for consumers with little to no experience with the conventional banking services. Munanda (2017) concludes that financial education is a key aspect in today’s financial environment as it provides relevant tools to a consumer to enable them to make prudent financial decisions (Lusardi, Mitchell, & Curto, 2010). Saving, investing, budgeting and borrowing are some of the instruments of financial behavior that if well equipped with financial education can result in sound management of funds by the youth. Also, financial education not only affects an individual but the economy in general as better financial behavior of a nation’s citizens results to a stable economy (Munanda, 2017). Financial prudence will in the long run improve the economic performance of a nation as new opportunities will be created as a result (McCormick, 2009).

According to Munanda (2017), financial literacy is a key survival skill that enables individuals to make informed decision about proper management of their funds while avoiding unsound financial decisions as they navigate through the financial world. It still remains a subject of interest in both the developed and developing economies as it has elicited an increase in interest in the subject in the recent past with the rapidly changing financial environment (Lusardi, Mitchell & Curto, 2010). One becomes a better financial manager if they have knowledge in basic financial investment concepts such as the ability to conduct basic calculations on interest rates and being able to understand the risk factor involved (McCormick, 2009).

The rapid increase of poor financial management among the youth, has resulted to several organizations taking up the role of educating the youth in managing their finances (Munanda, 2017). Youth Save is one among many organizations that has come up with financial courses that target the youth with an intention of educating them on the importance of saving and various policies in financial institutions that are in favor of the
youth (Youth Save, 2012). In addition, Youth Save also provides financial advisory services to the youth on saving and asset building strategies. This organization engages the use of complex case studies that the youth can relate to and eventually encourage them to apply the same in real life which will result to better financial behavior (Youth Save, 2012).

Other leading organizations taking up the role of educating the youth on financial literacy are National Endowment for Financial Education (NEFE) and Jumpstart Coalition which use voluntary national standards and curricula and other instruments of enhancing financial literacy (NCEE, 2002; Jumpstart Coalition, 2006). Munanda (2017) notes that in order to enable people to understand the importance of saving, education should be a key strategy during launching the campaign. Through conferences, workshops, and seminars, financial education can be provided to the youth that they can be able to relate with (Youth Save, 2012). During these education campaigns, close monitoring and evaluation of the participant youth should be conducted to ensure the campaigns are effective (Youth Save, 2012). Youth therefore, need to be trained to enable them to be more financially independent through developing a saving culture that will enable them to have more disposable funds for investment (Munanda, 2017). Youth Save (2012) recommend that institutions that provide financial education to the youth should provide adequate support structures that will enhance capacity building in youth cooperative movements.

According to Grubman, Bollerud and Holland (2011) youth should be prepared at tender age to be prudent financial managers as this will be key in bringing up solid adults. Johnson and Sherraden (2006) also agrees with this argument by adding that proper upbringing of children to be more aware of their financial obligations enables them to have a better financial behavior when they grow older. Also, it is much cheaper and easier to train children as they have fewer financial obligations and are likely to adapt a prudent financial behavior based on how their mentors or family member behave as most of the time, according to psychologists, they aspire to be like those that they admire or surrounded with (Johnson & Sherraden, 2006).

2.4.2 Budgeting

Budgeting is a key instrument that enables one to plan on how they spend their money (Pillai et al., 2012). One’s commitment to a financial plan is a step towards the right direction towards achieving a prudent financial discipline. Villanueva (2017) notes that
budgeting helps one to be strategic with their funds as they are able to evaluate their spending in comparison to their savings. Therefore, Continuous monitoring and evaluation of one’s spending will enable them to get the most out of their budget (Munanda, 2017).

According to Pillai et al. (2012) financial discipline is key when setting up an enterprise as it requires more commitment than anything else. Money management according to Villanueva (2017) is currently a key topic that is discussed in both the social and financial spheres as more and more are looking forward to increasing their wealth by improving their personal saving habits. Personal financial management and savings in general are believed to be general knowledge but most of the time they are overlooked and as a result people end up having financial uncertainties (Lusardi, Mitchell & Curto, 2010).

Salam (2002) states that setting aside a portion of one’s incomes and limiting spending can effectively increase once saving. In order to have an efficient budget it is very important for one to keep daily logs of their spending (Munanda, 2017). Lusardi et al. (2010) indicate that creating a budget is just a first step, the crucial part is creating a weekly and monthly track of one’s spending to ensure that they are in line with their budget. Using of personal finance software or applications provided by financial institutions can assist in making one’s budget consistent as they assist in tracking of expenses. Simple expense worksheets can also be used to track one’s personal budget as they can easily indicate where there is irregular spending (Villanueva, 2017).

During budgeting one should not increase their budget once they have exceeded it as this will render the budget ineffective. What one should do is consider other alternatives such as reducing their expenses (Munanda, 2017). Increase in prices of commodities may also be a reason as to why one may spend more than they budgeted for. This can be avoided by shopping for better deals before giving in to the extra expenses (Villanueva, 2017). Youth can therefore, take charge of their spending by recording their expenses every time they make a transaction either implicitly or explicitly (Heath & Soll, 1996). They can do this by classifying their expenses into various group of accounts in order to determine the most important and least important expenses then decide how they can minimize certain expenses in the groups created.

Innovation that has resulted to branchless banking, bank cards and brilliant technologies in mobile devices has increased the availability of financial services to the majority of the
population (Youth Save, 2012). The younger generation has been on the front line when it comes to adoption of new technology therefore, the youth should not have trouble using new technological ways when handling their money (Laukkanen & Pasanen, 2007).
2.4.3 Government Support

According to Munanda (2017), countries need to be informed to develop policies that encourage the youth to save more. For example, a country like Colombia has developed special market interest rates to enable the youth to obtain financial support affordably. Through the Ministry of Sports and Youth Affairs, Kenya on the other hand has its intension to develop the youth through policy engagement in business, skill enhancement and finance (Youth Save, 2012). Ghana also has different products and services tailored to meet the needs of the youth through the creation of universal bank policies that enable financial organizations to provide the same (Munanda, 2017). Youth welfare and financial inclusion are being encouraged in Nepal through the development of various programs by the Ministry of Youth and Sports (Youth Save, 2012).

Monetary service suppliers, politicians and donors in the recent years have become aware of the financial needs of the youth who lack access to financial services (Villanueva, 2017). World Bank recently released the Global Financial Inclusion Database (Findex) which indicated that 33 percent of the youth below 25 years have or own a bank account (Demargie-Kunt & Klapper 2012). Further, it is estimated that globally, around 4.2 million youth have access to a financial service with over $47.5 million in savings, $180 million outstanding in credit and approximately a million dollars in insurance (Making Cents International, 2010). What’s even worrying is that more than 800 million youth survive on less than $2 a day (Wyman, 2007).

Youth have various financial needs and by understanding these needs can be a step near to fulfilling them (Villanueva, 2017). Therefore, the specific challenges and opportunities faced by the youth can be managed by the provision of safe, quality, reliable and formal financial services (Munanda, 2017). Thus, the transitions from primary school to secondary school or university, marriage, starting a family or death of a loved one can be eased by availability of appropriate financial services. Johnson and Sherraden (2006) note that by providing savings accounts to the youth, good financial habits, proper asset building and improved savings rate will be promoted.

Issuing of exemptions for joint child accounts by regulators and policy makers is an example that can aid the promotion and development of legislation that would expand the accessibility of financial services to the young generation who encounter age restrictions when trying to open a savings account or own a bank account in general (UNCDF, 2012).
Policies that affect the accessibility of financial services to the youth depend on the flexibility of the regulators and legal framework parties. For example, Finance Trust a company in Uganda accepted recommendation letters from trusted community members like school heads, local council authority, or other authorities like churches, to be used as another form of identification (UNICEF, 2011). In Malawi also, Opportunity Bank Malawi (OBM) introduced a policy that accepted letters from chiefs of various regions in the country as a form of identification for youth who wanted to open a bank account but did not have national identification cards (Munanda, 2017). Biometric technology in the case of India has been introduced to uniquely identify individuals without proper documentation to open bank accounts (UNCDF, 2010).

The mode of delivery of financial services also affects the accessibility of the same to the youth (Villanueva, 2017). According to United Nations (2006) delivery channels like schools, agents, recreation centers and work places can assist in overcoming some of the barrier of physical access that youth who do not reside near a financial institution encounter. The government of Kenya developed Vision 2030 that aims at strengthening the existing economic structures by encouraging savings and investments (Ngugi, Amanja & Maana, 2009). Philippines and South African governments also promote strong saving cultures in their countries by introducing incentives, such as high interest rates on savings, that attract a larger population even the unbanked in order to increase the per capita savings of their nations (Youth Save, 2012). Banking on Your Future Kiddie Account is a savings product that was launched in Philippines in 2011 in order to increase the saving rate of the nation (UNCDF, 2012). In Russia, Financial Literacy and Education Trust Fund, a pilot program that was introduced in order to increase the per capita saving rates, reported a 1 percent increase in the savings (UNCDF, 2012). With an aim to attract more youth to save, Youth Save financial partners decided to create accounts that have low opening fees and minimum balance requirements (Youth Save, 2012).

2.5 Chapter Summary

This chapter basically set out to expound on the research objectives that were posed. The chapter helped understand the effects of mobile banking on the saving behavior of university students. It also helped understand the effects of mobile banking services on the spending behavior of university students and finally analyze how mobile banking can improve the financial behavior of university students.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter begins by describing the research design adopted. The aim of this study was to investigate the effects of mobile banking on the financial behavior of university students. The chapter examined and presented the research design, the set target population, sampling design, the methods used for data collection, the various research procedures undertaken and the methods that was used to analyze data in the study.

3.2 Research Design

According to McMillan and Schumacher (2001) research design can be defined as the plan for selecting subjects, location of the study and various data gathering techniques to answer various research questions. Cooper (2014) also defined research design as the blueprint for collecting data with the intention of finding answers to research questions. This study adopted the use of descriptive research design to investigate the effects of mobile banking on the financial behavior of university students.

According to Sekaran and Bougie a descriptive research tries to explain systematically a problem about a situation with the aim of showing what is prevalent with respect to the issue. A. Mugenda and O. Mugenda (2003) describe descriptive study as a study that is more concerned with what, where, and how an incidence occurs. Therefore, it is more suited to shape a profile on that occurrence. A descriptive research design best fits this study as it establishes a relationship between several variables in the same population hence shaping a profile of the occurrence (Leedy & Ormond, 2013).

3.3 Population and Sampling Design

3.3.1 Population

Kumar and Phrommathed (2005) describe a population as a set of elements, people, or groups of things where information is obtained from. Saunders, Lewis and Thornhill (2016) defines a target population as a sample taken from the general population where the researcher wants to generalize results from. This study focused on 5055 undergraduate students in United States International University- Africa (USIU-A) from
various academic years which include: freshman, sophomore, junior and seniors. According to the registrar’s office of USIU-A the institution consists a total population of 5,055 undergraduate students.

**Table 3.1: Population Distribution**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>1,503</td>
<td>30%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>1,348</td>
<td>21%</td>
</tr>
<tr>
<td>Junior</td>
<td>1,202</td>
<td>24%</td>
</tr>
<tr>
<td>Senior</td>
<td>1,002</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>5,055</td>
<td>100%</td>
</tr>
</tbody>
</table>

(Source: USIU-A Registrar office, 2018)

### 3.3.2 Sampling Design

Cooper and Schindler (2014) describe sampling design as the procedure used by the researcher to identify a sample from a set population that will be used for the study. Sampling design comprises of a sampling frame, technique and size.

#### 3.3.2.1 Sampling Frame

Kumar and Phrommathed (2005) define a sampling frame as the complete list of entities in a population from which a sample is drawn from. For the purpose of this study, the sample frame will constitute undergraduate students from various disciplines.

#### 3.3.2.2 Sampling Technique

Sampling technique is the method used by a researcher to select a sample from a population in order to generalize the findings (Cooper & Schindler, 2014). Sampling techniques are categorized into two; probability sampling or non-probability sampling (Creswell, 2013). Probability sampling is a sampling technique that allows all the instruments in the population a chance of being selected while non-probability sampling is a process in which samples are collected in a manner that not all individuals in the sample have an equal opportunity of being selected (Zikmund, Babin, Carr & Griffin, 2013).
This study will use a stratified random sampling technique. According to Saunders et al. (2016) a stratified random sampling is a technique that divides the entire target population into strata that subjects are selected from based on the proportion of each stratum. This technique prevents the biased selection of objects from a few sections of the population and therefore, confirms equal sample distribution.

### 3.3.2.3 Sample Size

A. Mugenda and O. Mugenda (2003) describe a sample size as the process of selecting a number of items from a population to constitute a sample that was used as a representative of the entire population for the research. A sample size according to Zikmund et al. (2013) should not be too small as it may not serve the purpose of the study or too big as it may be very costly, time consuming and waste resources. Therefore, when a researcher chooses a sample size, he/she should use scientific methods for this process (Saunders et al., 2016). The sample for this study was 370 students in the United States International University. Representatives were calculated using Yamane’s (1967) formula with 95% confidence level of and P=.05 yielding a sample size of respondents (Cooper and Schindler, 2003). The total number of respondents sampled to participate in the study was large enough for the study given intended goals of the research. The representation was derived from the formulae below.

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

\[
n = \frac{5055}{1 + 5055(0.05)^2}
\]

This gives \( n = 370.669 \Rightarrow \) Therefore 370

### Table 3.2: Sample Distribution

<table>
<thead>
<tr>
<th>Year</th>
<th>Sample Size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>108</td>
<td>29%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>103</td>
<td>28%</td>
</tr>
<tr>
<td>Junior</td>
<td>82</td>
<td>22%</td>
</tr>
<tr>
<td>Senior</td>
<td>77</td>
<td>21%</td>
</tr>
</tbody>
</table>
3.4. Data Collection Methods

According to Kothari (2006) data collection is the process in which a researcher collects data to be used in a study. This study will use questionnaires for data collection from the (sample number) undergraduate students in United States International University – Africa. Questionnaires are the most used method of data collection according to Christensen, Johnson and Turner (2015) as this method enables the researcher to collect a large amount of information over a short period of time and save on time. The authors however warn that the questionnaires should be short and precise for effective response from the respondents. The questionnaire was divided into various sections where the first section captured the general information of the respondents. The subsequent sections were captured specific questions arising from the research objectives. A Likert scale was used to elicit various attitudes and feelings from the respondents on certain subjects. This scale mostly used to measure the degree of satisfaction of the respondents (Cooper & Schindler, 2014).

3.5 Research Procedure

Research procedure is the process in which a research is conducted by a researcher (Sekaran & Bougie, 2013). Permissions for conducting this research was obtained from the research supervisor, the Dean of Chandaria School of Business, the USIU-A research office and the National Commission for Science, Technology and Innovation (NACOSTI).

3.6.2 Administration of the Instrument

This is the process of obtaining information from the respondents via use of various tools (Munanda, 2017). This study will use self-administered questionnaires. According to Salkind (2012) this is the process of the respondent filling in the questionnaires without the help of the researcher therefore, the questions are usually easy to follow and answer.

According to Bryman and Bell (2011) self-administered questionnaires have several advantages such as they are fast to administer and convenient to both the researcher and respondent. They also bear a few challenges for example, there is no one present for
clarification if needed and also, they limit the researcher to asking a few questions in order to avoid poor responses.
3.6.3 Ethical Considerations

Research ethics, according to Christensen *et al.* (2015), are a set of guiding principles that enable a researcher to conduct an ethical research. This ethics according to the author comprise of professional issues, the relationship between science and society and the treatment of the research participants. This research therefore, was conducted in an ethical manner to ensure that it complies with the set research ethical standards.

3.7 Data Analysis Methods

According to Wagner, Halley and Zaino (2011) data analysis is the process of analyzing, cleaning, transforming and modelling data collected. Data analysis can also be described as the process of applying various statistical procedures to clean up data in order to end up with relevant information that can be used in decision-making (Newman, & Benz, 1998). Both quantitative and qualitative data will be used and once the data is collected it will be coded into various variables for easy data entry and interpretation.

Data analysis conducted using descriptive statistics. Descriptive statistics is a measurement that portrays the spread, center and shape of distributions and therefore, enable the researcher to analyze and summarize the data in a simple way (Cooper & Schindler, 2014). Also, inferential statistics was used in the analysis as this statistical method makes extrapolations of an entire population from a collected sample (Zikmund *et al*., 2013). Analyzed data will be presented in form of charts, tables and graphs.

3.8 Chapter Summary

This chapter has discussed the research methodology. It has well outlined the research design that was used for this study. The population and sampling design have been well defined with the following sampling design subtopics; sampling frame, sampling technique and sampling size. This chapter also enables one to understand the various data collection methods, research procedures and data analysis methods used for the study. The following chapter focuses on results and findings of the study.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter gives detailed analysis of data collection, editing, coding, classification and tabulation, and analysis of the findings. The general objective of the study was to determine the effects of mobile banking on the financial behavior of university students. Statistical packages for social sciences software was used to code, classify and tabulate the findings in form of frequency distribution and percentages and present the findings in form of frequency tables, pie charts and bar graphs. A summary of findings is given at the end of this chapter.

4.1.1 Response Rate

Three hundred and seventy questionnaires were distributed out of which two hundred and fourteen were successfully filled and returned. This was equivalent to 58% response rate. The Figure 4.1 shows the response rate of the students.

![Response Rate](image)

**Figure 4.1: Response Rate**

4.2 General Information

4.2.1 Gender of Students

The distribution of respondents by gender as shown in Figure 4.2 below. The figures show that male students accounted for 62% of the respondents whereas 38% of the respondents were female. Therefore, majority of the respondents were male.
4.2.2 Age of Students

The study sought to establish respondents’ distribution by age. Figure 4.3 shows that 15% of the respondents were below 18 years whereas, 19 to 24 was 71%, between 25 to 30 years was 12%, and lastly 2% of the respondents were aged 30 years and above. This was expected since undergraduate students accounted for the majority of the respondents at the university and as such, they were likely to be younger.

4.2.3 Academic Year of Study

The study sought to establish the distribution of respondents who were undertaking undergraduate program in terms of their year of study. Figure 4.4 shows that 18% of the respondents were freshman, sophomore was 28%, Junior accounted for 32%, whereas
senior year students were 21%. Therefore, students were fairly represented in terms of year of study.

![Academic Year of Students](image)

**Figure 4.4: Academic Year of students**

4.2.4 Sector of Employment

The study sought to understand the sector of employment of the students as shown in the figure below. The findings indicated that 4% were working in the public sector, 6% were from the private sector, 19% were self-employed, 1% were semi-government agency and lastly 70% were unemployed.

![Sector of Employment](image)

**Figure 4.5: Sector of Employment**
4.2.5 Use of Mobile Banking Services
The study sought to understand the use of mobile banking services by students, where the findings indicated that 84% of the students use mobile banking and they were the majority and only 16% were not using mobile banking services. The findings are indicated in the figure below on the use of mobile banking services.

![Pie chart showing use of mobile banking services: Yes, 84%, No, 16%](image)

**Figure 4.6: Use of Mobile Banking Services**

4.2.6 Frequency of Mobile Banking Services
The study sought to understand the frequency of the use of mobile banking services. The findings indicated that 56% of the students use the service very often, 26% use it sometimes, 7% rarely use the services, and 10% do not use the services of mobile banking. The Figure 4.7 below shows the summary of the findings of the mobile usage among university students.

![Bar chart showing frequency of mobile banking services: Very often, 56%; Sometimes, 26%; Rarely, 7%; Never, 10%](image)

**Figure 4.7: Frequency of Mobile Banking Services**
4.2.7 Mobile Banking Services and Spending Rate
The study sought to understand if the introduction of mobile banking services increases the spending rate of university students and the findings showed that majority of the students indicated that it has increased by 52% while only 48% indicated a no on the findings. The Figure 4.8 below shows the findings of the study.

![Figure 4.8: Mobile Banking Services and Spending Rate](image)

4.2.8 Preferences of Mobile Banking Services
The study sought to understand if students prefer to use mobile banking services to make purchases as compared to traditional methods. The findings of the study indicated that 74% of the students prefer to use mobile banking as opposed to the use of traditional methods. The findings are indicated in the Figure 4.10 below on the preferences of mobile banking services.

![Figure 4.9: Preferences of Mobile Banking Services](image)
4.3 Effects of Mobile Banking Services on Saving Behavior

The study sought to understand the effect of mobile banking services on saving behavior where most of the students agreed that saving behavior is the combination of a saving need, a saving decision and a saving action by 26% agreeing and 46% strongly agreed and a mean of 4.000. On the saving is depositing funds in the bank, investing, paying off mortgages and speculation they rated as, agreed by 23% and 22% strongly agreed and a mean of 3.198 was reported. Most of the students agreed that they use mobile devices to conduct mobile banking with 27% agreeing and 38% strongly agreed therefore, a mean of 3.760 was reported.

On the use of mobile phones are the main driving component of the mobile banking initiative 32% agreed and 44% strongly agreed and therefore, a mean of 4.028. The next question was if the financial service providers have become more interested in the behavioral patterns of consumers where 26% agreed and 47% as strongly agreed and a mean of 4.028 was reported. The next question was if they find financial saving more accessible via mobile banking as compared to physically walking to the bank as it was traditional where 18% agreed and 48% strongly agreed therefore, a mean of 3.903 was reported. Under whether mobile banking services allow users to have a virtual bank account that is accessed and operated via a mobile phone it was rated as 27% agreed and 37% strongly agreed resulting to a mean of 3.760.

The question on mobile money savings account allows the account holder to borrow and save funds through their mobile phones while earning an interest on their savings was rated as 25% agreed and 33% strongly agreed and a mean of 3.668 was realized. The next one was if they find mobile banking to be a complementary to other saving mechanisms and it was rated 26% agreed and 33% strongly agreed therefore, a mean of 3.650 was reported. On availability of portable mobile phones has highly eased the need to bank and save on time was rated as 20% agreeing and 46% strongly agreed and a mean of 3.945 was realized. Lastly was if it is easier and convenient to check account statements as it is immediate with only internet and a mobile device where it was rated as 18% agreed and 58% strongly agreed and mean of 4.143 was reported. The Table 4.1 below shows the summary of the effects of mobile banking services on saving behavior.
Table 4.1 Effects of Mobile Banking Services on Saving Behavior

<table>
<thead>
<tr>
<th>Statements</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving behavior is the combination of a saving need, a saving decision and a saving action.</td>
<td>7%</td>
<td>5%</td>
<td>16%</td>
<td>26%</td>
<td>46%</td>
<td>4.000</td>
</tr>
<tr>
<td>Saving is depositing funds in the bank, investing, paying off mortgages and speculation.</td>
<td>14%</td>
<td>20%</td>
<td>21%</td>
<td>23%</td>
<td>22%</td>
<td>3.198</td>
</tr>
<tr>
<td>I use my mobile to conduct mobile banking</td>
<td>9%</td>
<td>10%</td>
<td>17%</td>
<td>27%</td>
<td>38%</td>
<td>3.760</td>
</tr>
<tr>
<td>Mobile phones are the main driving component of the mobile banking initiative.</td>
<td>6%</td>
<td>5%</td>
<td>13%</td>
<td>32%</td>
<td>44%</td>
<td>4.028</td>
</tr>
<tr>
<td>Financial service providers have become more interested in the behavioral patterns of consumers</td>
<td>5%</td>
<td>6%</td>
<td>17%</td>
<td>26%</td>
<td>47%</td>
<td>4.028</td>
</tr>
<tr>
<td>I find financial saving more accessible via mobile banking as compared to physically walking to the bank as it was traditional.</td>
<td>7%</td>
<td>10%</td>
<td>17%</td>
<td>18%</td>
<td>48%</td>
<td>3.903</td>
</tr>
<tr>
<td>Mobile banking service allows users to have a virtual bank account that is only accessed and operated via a mobile phone.</td>
<td>7%</td>
<td>11%</td>
<td>19%</td>
<td>27%</td>
<td>37%</td>
<td>3.760</td>
</tr>
<tr>
<td>Mobile money savings account allows the account holder to borrow and save funds through their mobile phones while earning an interest on their savings.</td>
<td>9%</td>
<td>6%</td>
<td>27%</td>
<td>25%</td>
<td>33%</td>
<td>3.668</td>
</tr>
<tr>
<td>I find mobile banking to be a complementary to other saving mechanisms.</td>
<td>8%</td>
<td>11%</td>
<td>22%</td>
<td>26%</td>
<td>33%</td>
<td>3.650</td>
</tr>
<tr>
<td>Availability of portable mobile phones has highly eased my need to bank and save on time.</td>
<td>4%</td>
<td>10%</td>
<td>20%</td>
<td>20%</td>
<td>46%</td>
<td>3.945</td>
</tr>
<tr>
<td>It is easier and convenient to check account statements as it is immediate with only internet and a mobile device.</td>
<td>7%</td>
<td>6%</td>
<td>11%</td>
<td>18%</td>
<td>58%</td>
<td>4.143</td>
</tr>
</tbody>
</table>

4.3.1 Correlational Analysis between Mobile Banking and Saving Behavior

Correlation is a statistical analysis that helps to measure and analyze the degree of relationship between two variables. The findings show that the first objective of the study which is saving behavior has strong positive correlation with the dependent mobile banking services variable with the value of 0.760 and which is significant, where the p-value is less than 0.01 as indicated in Table 4.2 below.
Table 4.2: Correlational Analysis between Mobile Banking and Saving Behavior

<table>
<thead>
<tr>
<th></th>
<th>Mobile Banking</th>
<th>Saving Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Banking Services</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>217</td>
</tr>
<tr>
<td>Saving Behavior</td>
<td>Pearson Correlation</td>
<td>.760**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>217</td>
</tr>
</tbody>
</table>

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

4.3.2 Regression Analysis on Mobile banking and Saving Behavior

Model summary describes how far the independent variables explain the dependent variable that means the greater R value is the greater the independent variables explain with dependent variable. The model in the Table 4.3 indicates that the variation of dependent variable that is mobile banking services is explained by the change in the independent variable which is saving behavior. Therefore, the R-squared is equals to 0.577, that is, saving behavior explains 57.7% of observed change in mobile banking services.

Table 4.3: Model Summary on Mobile banking and Saving Behavior

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.760a</td>
<td>.577</td>
<td>.575</td>
<td>3.94368</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Mobile Banking Services

The ANOVA Table 4.4 below indicates the variance between mobile banking and saving behavior. The analysis of variance measures how the model summary is used to predict the change in the dependent variable. The P-value and F-value indicates that level of significance (0.05) of saving behavior is significant in predicting the use of mobile banking services where (F =293.155, P<0.05).
Table 4.4: ANOVA Table on Mobile banking and Saving Behavior

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>4559.319</td>
<td>1</td>
<td>4559.319</td>
<td>293.155</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>3343.806</td>
<td>215</td>
<td>15.553</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7903.124</td>
<td>216</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Saving Behavior  
b. Predictors: (Constant), Mobile Banking Services

The Table 4.5 below indicates the coefficients analysis on the saving behavior and mobile banking services where the regression equation was: Mobile Baking Services = 5.312 + 0.699 Spending Behavior. The analysis shows that, the one-unit change in spending behavior resulted in 0.699 units increase in mobile banking service. The regression model explained the results as shown in the table below.

Table 4.5: Coefficients Analysis on Mobile Banking and Saving Behavior

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>5.312</td>
<td>1.287</td>
<td></td>
<td>4.128</td>
</tr>
<tr>
<td>Mobile Banking</td>
<td>.699</td>
<td>.041</td>
<td>.760</td>
<td>17.122</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Saving Behavior

4.4 Effects of Mobile Banking Services on Spending Behavior

The aim of the objective was to determine the effects of mobile banking services on spending behavior. The first question was if high expenses put students in a unique situation resulting to managing funds differently where most of the students agreed by 25% and 33% strongly agreed therefore, a mean of 3.627 was realized. Under lack of financial education can result to wasteful spending behaviors when one is unemployed, 24% agreed, 48% strongly agreed and a mean of 3.968 was reported. Financial prudence of parents towards managing finances affects respondents where 24% of students agreed and 30% strongly agreed and a mean of 3.498 was reported. Under the spending behavior is an escalating predicament that affects them, 29% of students agreed and 29% strongly agreed and a mean of 3.516 was reported. The next question was if the
students are more concerned in accumulating material possessions which leads them to making poor purchasing decisions. 22% agreed and 24% strongly agreed and a mean of 3.157 was reported. The next question was if it is easy to access mobile banking loan facilities as compared to physically walking to the banking hall for the same where it was rated 26% as agreed and 41% strongly agreed and a mean of 3.825 was realized. 24% agreed and 24% as strongly agreed and a mean of 3.194 was reported on whether it is easy to access loan facilities which has highly fueled their spending culture. The next question was if lack of financial experience before joining the university often contributes to poor financial habits where it was rated 26% as agreed and 33% strongly agreed and a mean of 3.548 was realized. Under spending habits have been associated with a certain desire of obtaining certain level of social status was rated 20% as agreed and 25% strongly agreed and a mean of 3.157 was reported. The next question was if the early exposure to financial behaviors can influence one’s rationale behind spending and saving where most of the students agreed by 36% and 40% strongly agreed and a mean of 3.995 was reported. The question on budgeting helps to be strategic with funds as I am able to evaluate my spending in comparison to savings where 33% agreed and 37% strongly agreed and a mean of 3.848 was realized.

Mobile banking is a platform that provides banking services to its customers regardless of their location where 28% agreed and 48% strongly agreed and a mean of 4.051. 25% agreed, 47% strongly agreed and a mean of 4.000 was reported on whether advancement in technology has resulted in 4G service which is faster and has increased the speed in the use of mobile services. Lastly, on the use of mobile banking as a banking option is cheaper than other banking facilities, 13% of students rated as agreed, 40% strongly agreed and a mean of 3.604 was reported. The Table 4.2 below shows the effects of mobile banking services on spending behavior.
Table 4.6: Effects of Mobile Banking Services on Spending Behavior

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>High expenses put me in a unique situation resulting to managing funds differently.</td>
<td>11%</td>
<td>7%</td>
<td>24%</td>
<td>25%</td>
<td>33%</td>
<td>3.627</td>
</tr>
<tr>
<td>Lack of financial education can result to wasteful spending behaviors when one is unemployed.</td>
<td>7%</td>
<td>9%</td>
<td>12%</td>
<td>24%</td>
<td>48%</td>
<td>3.968</td>
</tr>
<tr>
<td>Financial prudence of my parents towards managing finances affects me.</td>
<td>12%</td>
<td>10%</td>
<td>24%</td>
<td>24%</td>
<td>30%</td>
<td>3.498</td>
</tr>
<tr>
<td>Spending behavior is an escalating predicament that affects me.</td>
<td>12%</td>
<td>10%</td>
<td>20%</td>
<td>29%</td>
<td>29%</td>
<td>3.516</td>
</tr>
<tr>
<td>I am more concerned in accumulating material possessions which leads me to making poor purchasing decisions.</td>
<td>18%</td>
<td>19%</td>
<td>18%</td>
<td>22%</td>
<td>24%</td>
<td>3.157</td>
</tr>
<tr>
<td>It is easy for me to access mobile banking loan facilities as compared to physically walking to the banking hall for the same.</td>
<td>9%</td>
<td>7%</td>
<td>18%</td>
<td>26%</td>
<td>41%</td>
<td>3.825</td>
</tr>
<tr>
<td>It is easy for me to access loan facilities which has highly fueled my spending culture.</td>
<td>18%</td>
<td>17%</td>
<td>18%</td>
<td>24%</td>
<td>24%</td>
<td>3.194</td>
</tr>
<tr>
<td>Lack of financial experience before joining the university often contributes to poor financial habits.</td>
<td>12%</td>
<td>12%</td>
<td>18%</td>
<td>26%</td>
<td>33%</td>
<td>3.548</td>
</tr>
<tr>
<td>My spending habits have been associated with a certain desire of obtaining certain level of social status.</td>
<td>20%</td>
<td>15%</td>
<td>19%</td>
<td>20%</td>
<td>25%</td>
<td>3.157</td>
</tr>
<tr>
<td>Early exposure to financial behaviors can influence one’s rationale behind spending and saving.</td>
<td>5%</td>
<td>6%</td>
<td>14%</td>
<td>36%</td>
<td>40%</td>
<td>3.995</td>
</tr>
<tr>
<td>My budgeting helps to be strategic with funds as I am able to evaluate my spending in comparison to savings</td>
<td>6%</td>
<td>10%</td>
<td>14%</td>
<td>33%</td>
<td>37%</td>
<td>3.848</td>
</tr>
<tr>
<td>Mobile banking is a platform that provides banking services to its customers regardless of their location.</td>
<td>7%</td>
<td>6%</td>
<td>12%</td>
<td>28%</td>
<td>48%</td>
<td>4.051</td>
</tr>
<tr>
<td>Advancement technology has resulted in 4G service which is a faster and has increased the speed in the use of mobile services.</td>
<td>5%</td>
<td>8%</td>
<td>15%</td>
<td>25%</td>
<td>47%</td>
<td>4.000</td>
</tr>
<tr>
<td>Use of mobile banking as a banking option is cheaper than other banking facilities.</td>
<td>10%</td>
<td>13%</td>
<td>24%</td>
<td>13%</td>
<td>40%</td>
<td>3.604</td>
</tr>
</tbody>
</table>

4.4.1 Correlational Analysis between Mobile Banking and Spending Behavior

The Table 4.7 shows that the second objective of the study which is spending behavior has strong positive correlation with the dependent variable which is mobile banking services with the value of 0.642 and which is significant, where the p-value is less than 0.01. as indicated below.
Table 4.7: Correlational Analysis between Mobile Banking and Spending Behavior

<table>
<thead>
<tr>
<th></th>
<th>Mobile Banking</th>
<th>Spending Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Banking Services</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>217</td>
</tr>
<tr>
<td>Spending Behavior</td>
<td>Pearson Correlation</td>
<td>.642**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>217</td>
</tr>
</tbody>
</table>

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

4.4.2. Regression on Mobile banking and Spending Behavior

The model summary in the Table 4.8 indicates that the variation of dependent variable that is mobile banking services is explained by the change in the independent variable which is spending behavior. Therefore, the R-squared is equals to 0.412, that is, spending behavior explains 41.2% of observed change in mobile banking services.

Table 4.8: Model Summary on Mobile banking and Spending Behavior

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.642a</td>
<td>.412</td>
<td>.409</td>
<td>7.98959</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Mobile Banking Services

The ANOVA Table 4.9 below indicates the variance between mobile banking and spending behavior. The analysis of variance measures how the model summary is used to predict the change in the dependent variable. The P-value and F-value indicates that level of significance 0.05 spending behavior is significant in predicting the use of mobile banking services where (F =150.546, P<0.05).
Table 4.9: ANOVA Table on Mobile banking and Spending Behavior

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>9609.890</td>
<td>1</td>
<td>9609.890</td>
<td>150.546</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>13724.221</td>
<td>215</td>
<td>63.834</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>23334.111</td>
<td>216</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Spending Behavior  
b. Predictors: (Constant), Mobile Banking Services

The Table 4.10 below indicates the coefficients analysis on the spending behavior and mobile banking services where the regression equation was: Mobile Baking Services = 12.040 + 0.756 Spending Behavior. The analysis shows that, one-unit change in spending behavior resulted in 0.756 units increase in mobile banking services. The regression model explained the results as shown in the table below.

Table 4.10: Coefficients Analysis on Mobile Banking and Spending Behavior

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>12.040</td>
<td>2.607</td>
<td>4.617</td>
</tr>
<tr>
<td></td>
<td>Mobile Banking Services</td>
<td>.756</td>
<td>.083</td>
<td>.642</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Spending Behavior

4.5 How to Improve the Financial Behavior of University Students

The study sought to understand how to improve the financial behavior of university students. The first question was if the financial education is a key aspect in today’s financial environment as it provides relevant tools to make prudent financial decisions where 22% rated as agreed, 59% strongly agreed and a mean of 4.217 was realized. Under saving is one of the instruments of financial behavior which result in sound management of funds, most of the students rated 28% as agreed 49% strongly agreed and a mean of 4.134 was reported.

Financial literacy is a key survival skill that enables me to make informed decisions about proper management of my funds where 30% strongly agreed 47% as strongly agreed and
a mean of 4.092. Under whether students consider the usefulness and reliability of mobile banking and whether it enhances efficiency was rated 34% as agreed and 36% strongly agreed and a mean of 3.876 was reported. The question was if one should be prepared at a tender age to be prudent financial managers as this will be key in bringing up solid adults where 24% agreed and 48% was rated as strongly agreed and a mean of 4.005 was reported. Under the financial discipline is key when setting up an enterprise as it requires more commitment than anything else, it was rated 20% as agreed and 56% strongly agreed and a mean of 4.226 was reported.

The government should provide incentives to promote savings among the youths was rated 16% as agreed, 59% as strongly agreed and a mean of 4.152 was reported. Under banks should provide incentives to the youths to promote the savings aggregate among the youths, a majority of the students agreed by 28%, 50% as strongly agreed and a mean of 4.129 was realized. Under the question on making the decision to use a banking facility as students consider the perceived usefulness and ease of awareness of the service, they rated 33% as agreed, 42% as strongly agreed and a mean of 3.986 was realized. Most of the students agreed by 27%, and 48% strongly agreed resulting to a mean of 4.083 being realized on the question of one of the security features of the mobile banking service is the use of a mobile pin number. Lastly, the availability of portable mobile phones has highly eased students need to bank and save on time where 19% agreed, 55% strongly and a mean of 4.092 was reported. The Table 4.3 below indicates the findings of the study on how to improve the financial behavior of university students.
Table 4.11: How to Improve the Financial Behavior of University Students

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial education is a key aspect in today’s financial environment as it provides relevant tools to make prudent financial decisions.</td>
<td>6</td>
<td>5%</td>
<td>9%</td>
<td>%</td>
<td>%</td>
<td>4.217</td>
</tr>
<tr>
<td>Saving, is one of the instruments of financial behavior which result in sound management of funds.</td>
<td>4</td>
<td>6%</td>
<td>14%</td>
<td>28</td>
<td>49</td>
<td>4.134</td>
</tr>
<tr>
<td>Financial literacy is a key survival skill that enables me to make informed decisions about proper management of my funds.</td>
<td>4</td>
<td>7%</td>
<td>12%</td>
<td>30</td>
<td>47</td>
<td>4.092</td>
</tr>
<tr>
<td>I consider the usefulness and reliability of mobile banking and whether it enhances efficiency.</td>
<td>6</td>
<td>7%</td>
<td>17%</td>
<td>34</td>
<td>36</td>
<td>3.876</td>
</tr>
<tr>
<td>One should be prepared at tender age to be prudent financial managers as this will be key in bringing up solid adults.</td>
<td>8</td>
<td>5%</td>
<td>14%</td>
<td>24</td>
<td>48</td>
<td>4.005</td>
</tr>
<tr>
<td>Financial discipline is key when setting up an enterprise as it requires more commitment than anything else.</td>
<td>3</td>
<td>5%</td>
<td>16%</td>
<td>20</td>
<td>56</td>
<td>4.226</td>
</tr>
<tr>
<td>The government should provide incentives to promote savings among the Youths</td>
<td>6</td>
<td>7%</td>
<td>12%</td>
<td>16</td>
<td>59</td>
<td>4.152</td>
</tr>
<tr>
<td>Banks should provide incentives to the youths to promote the savings aggregate among the youths.</td>
<td>4</td>
<td>7%</td>
<td>12%</td>
<td>28</td>
<td>50</td>
<td>4.129</td>
</tr>
<tr>
<td>When making the decision to use a banking facility, I consider the perceived usefulness and ease of awareness of the service.</td>
<td>6</td>
<td>5%</td>
<td>15%</td>
<td>33</td>
<td>42</td>
<td>3.986</td>
</tr>
<tr>
<td>One of the security features of the mobile banking service is the use of a mobile pin number.</td>
<td>3</td>
<td>8%</td>
<td>15%</td>
<td>27</td>
<td>48</td>
<td>4.083</td>
</tr>
<tr>
<td>Availability of portable mobile phones has highly eased my need to bank and save on time.</td>
<td>7</td>
<td>7%</td>
<td>13%</td>
<td>19</td>
<td>55</td>
<td>4.092</td>
</tr>
</tbody>
</table>

4.5.1 Correlational Analysis between Mobile Banking and Financial Behavior

The third objective of the study which is financial behavior has strong positive correlation with the dependent variable which is mobile banking services with the value of 0.660 and significant, where the p-value is less than 0.01. as indicated below.
Table 4.12: Correlational Analysis between Mobile Banking and Financial Behavior

<table>
<thead>
<tr>
<th>Mobile Banking Services</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
<th>Financial Behavior</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Banking Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
<td>Financial Behavior</td>
<td>.660**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>217</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.660**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>217</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

4.5.2 Regression on Mobile banking and Financial Behavior

The model summary in the Table 4.13 indicates that the variation of the dependent variable, that is mobile banking services, is explained by the change in the independent variable which is financial behavior. The R-squared is equals to 0.436, that is, financial behavior explains 43.6% of observed change in mobile banking services.

Table 4.13: Model Summary on Mobile banking and Financial Behavior

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.660a</td>
<td>.436</td>
<td>.433</td>
<td>5.99618</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Mobile Banking Services

The ANOVA Table 4.14 below indicates the variance between mobile banking and financial behavior. The analysis of variance measures how the model summary is used to predict the change in the dependent variable. The P-value and F-value indicates that level of significance that is financial behavior is significant in predicting the use of mobile banking services where (F =166.010, P<0.05).
Table 4.14: ANOVA Table on Mobile banking and Financial Behavior

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5968.744</td>
<td>1</td>
<td>5968.744</td>
<td>166.010</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>7730.141</td>
<td>215</td>
<td>35.954</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13698.885</td>
<td>216</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Financial Behavior
b. Predictors: (Constant), Mobile Banking Services

The Table 4.15 below indicates the coefficients analysis on the financial behavior and mobile banking services where the regression equation was: Mobile Banking Services = 12.040 + 0.756 Financial Behavior. The analysis shows that, a one-unit change in financial behavior resulted in 0.800 units increase in mobile banking service. The regression model explained the results as shown in the table below.

Table 4.15: Coefficients Analysis on Mobile Banking and Financial Behavior

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>12.362</td>
<td>1.957</td>
<td>6.317</td>
</tr>
<tr>
<td>Mobile Banking Services</td>
<td>.800</td>
<td>.062</td>
<td>.660</td>
<td>12.884</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Financial Behavior

4.6 Chapter Summary

This chapter has presented the findings of the study. Descriptive statistics has been used to explain the three objectives and presented in percentages, tables and figures. Correlation was used to explain the study variables and regression analysis was used to explain the extent to which the independent variables affected the dependent variable. There was a positive relationship between the dependent and independent variables. The next chapter provides the summary of the findings, discussions based on the objectives, the conclusion and recommendations of the study.
CHAPTER FIVE

5.0 DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter briefs on the results as found in the previous chapter followed by the discussions of these results as compared with other past studies that have covered similar topic in other areas. A conclusion is then made based on the findings and research questions sought by the study. At the end of it all recommendations are made as per the findings as well as suggestions for areas that further studies can be conducted on.

5.2 Summary of the study

The general objective of the study was to determine the effects of mobile banking on the financial behavior of university students. The study was guided by the following specific objectives; to establish the effects of mobile banking services on the saving behavior of university students, to determine the effects of mobile banking services on the spending behavior of university students, and to analyze how to improve the financial behavior of university students.

The study adopted the use of descriptive research design as aided in identification of the type of association, defining complex associations of multiple factors that account for the outcome and forecasting an outcome from different predictor variables. The study focus was 370 undergraduate students in United States International University- Africa from various academic years which include: freshman, sophomore, junior and senior. This study used stratified random sampling technique. For the study, the researcher used questionnaires to collect data from the target population as a source of primary data. The data was coded by attaching numerical value to every qualitative data. The responses were then coded, and entries made into Statistical Package for Social Science (SPSS ver.25). The data was analyzed using both descriptive and inferential statistics which is in percentages, table and graphs were presented.

The findings indicated that out of the three hundred and seventy questionnaires that were distributed, two hundred and fourteen were successfully filled and returned. This was equivalent to 58% response rate. Male students accounted for 62% of the respondents whereas 38% of the respondents were female. The findings show that 15% of the
respondents were below 18 years whereas, 19 to 24 years were 71%, between 25 to 30 years were 12%, and 2% of the respondents were aged 30 years and above. The distribution of respondents who were undertaking undergraduate program in terms of their year of study shows that 18% of the respondents were freshmen, sophomores were 28%, juniors accounted for 32%, while senior year students were 21%. Under the use of mobile banking services by students, the findings indicated that 84% of the students use mobile banking and only 16% were not using mobile banking services. The frequency of the use of mobile banking services, and the findings indicated that majority of the students use the services very often. Introduction of mobile banking services increases the spending rate of university students and the findings showed that majority of the students indicated that it has increased by 52% while only 48% indicated a no on the findings. The preference of use of mobile banking services to make my purchases as compared to traditional methods where the findings of the study indicated that most students prefer to use mobile banking as opposed to the traditional method. There was strong correlation between saving behavior and mobile banking services. The findings agree with Munanda (2017) who stated that saving accounts among the youth, have had a great influence on different regions of the world, since its inception.

The findings on the first objective indicated that saving behavior has a strong positive correlation with mobile banking services. The findings on the second objective showed that there was a positive correlation between spending behavior and mobile banking services indicating that the use mobile banking services among the university students have increased due to enhanced platforms. Thirdly the findings indicated that financial behavior has a strong positive correlation with mobile banking services.

5.3 Discussions

5.3.1 Effects of Mobile Banking Services on Saving Behavior

The outcomes on the first objective on the effect of mobile banking services on the saving behavior, where most of the students agreed that saving behavior is the combination of a saving need, a saving decision and a saving action. Also saving is depositing funds in the bank, investing, paying off mortgages and speculation where most of the students agreed and that they use mobile devices to conduct mobile banking. These findings agree with the assertions of Warneryd (1999) on the use of mobile phones as the main driving component of the mobile banking initiative, financial service providers have become
more interested in the behavioral patterns of consumers where most students agreed. The findings are in line with Kreyer, Pousttchi and Turowski (2002) where they stated that mobile phones are the main driving components of the mobile banking initiative.

Financial saving is more accessible via mobile banking as compared to physically walking to the bank as it was traditional, mobile banking service allows users to have a virtual bank account that is only accessed and operated via a mobile phone. This agrees with Maurer (2012) who asserted that mobile money a form of mobile banking is a service that practically allows users to have a virtual bank account that is only accessed and operated via a mobile phone. According to Debadutta (2012) noted that mobile phones have evolved in numerous ways. The speed at which business transactions are conducted is so fast that little to no time is wasted, resulting to timely transactions and rapid growth of the economy which has allowed accessibility of financial services.

The findings on mobile money savings account allows the account holder to borrow and save funds through their mobile phones while earning an interest on their savings was rated by most students as agreed. The result of the study is the same as that of Wamuyu (2014), where he asserted that mobile money savings account is a banking service that allows the account holder to borrow and save funds through their mobile phones while earning an interest on their savings. Students can put their funds into the savings account easily and get an interest on their deposits over a given period of time.

Mobile banking to be a complementary to other saving mechanisms was rated by most students as agreed. On availability of portable mobile phones has highly eased the need to bank and save on time was rated as agreed and it is easier and convenient to check account statements as it is immediate with only internet and a mobile device where it was rated as agreed. There was strong correlation between saving behavior and mobile banking services. The findings agree with Munanda (2017) who stated that savings account among the youth, has had a great influence on different regions of the world, since its inception.

5.3.2 Effects of Mobile Banking Services on Spending Behavior
The findings on the second objective was to determine the effects of mobile banking services on spending behavior. The first question was if high expenses put students in a unique situation resulting to managing funds differently where most of the students agreed. This is in line with Micomonaco (2003) who noted that restricted incomes and high expenses put college students in a unique situation and manage this fund differently.
The students agreed that lack of financial education can result to wasteful spending behaviors when one is unemployed. According to Pillai *et al.*, (2012) they stated that poor financial education during childhood can result to wasteful spending behaviors when teenagers and young adults are employed in temporary or part-time jobs. University students tend to spend their income on wants rather than needs for instant gratification.

The financial prudence of parents towards managing finances affects students where it was agreed by many. The spending behavior is an escalating predicament that affects students where they agreed. This is in line with a study conducted by Hibbert *et al.* (2004). Through a model, the study emphasized that financial prudence of parents during early childhood of their children would affect their children’s financial planning when they are young adults. Students are more concerned in accumulating material possessions which lead to making poor purchasing decisions, it was agreed by most of the students. Most students also agreed that it is easy for them to access mobile banking loan facilities as compared to physically walking to the banking hall for the same. This ease of accessibility of loan facilities has highly fueled their spending culture.

The findings on lack of financial experience before joining the university often contributes to poor financial habits where it was rated by most as agreed and they also agreed on the spending habits have been associated with a certain desire of obtaining certain level of social status. The findings agree with a study conducted by Sabri and MacDonald, (2010), to analyze the relationship between financial issues and saving behavior of university students in Malaysia, that indicated lack of financial experience before joining the university often contributes to poor financial habits. This is vivid by the low financial literacy among the participant of the study who first experienced financial independence at the university level (Sabri & MacDonald, 2010). The question on early exposure to financial behaviors can influence one’s rationale behind spending and saving where most of the students agreed.

The question on budgeting helps to be strategic with funds as students are able to evaluate spending in comparison to savings and mobile banking is a platform that provides banking services to its customers regardless of their location. The students highly agreed that advancement in technology has resulted in 4G service which is a faster and has increased the speed in the use of mobile services and on the use of mobile banking as a banking option is cheaper than other banking facilities where most students rated as
agreed. According to Ngatia, (2013) increased speeds in the use of mobile services like mobile banking has enhanced efficiency in the mobile industry. For example, traditionally one would make long tiresome queues in the banking hall to make cash withdrawals or deposits but with the availability of mobile banking one can simply transfer funds at the comfort of their homes through their mobile phones or visit the numerous mobile banking agents spread all over the country.

5.3.3 Improvement of Financial Behavior of University Students

The study sought to understand how to improve the financial behavior of university students. The first question was if the financial education is a key aspect in today’s financial environment as it provides relevant tools to make prudent financial decisions where it rated by most of the students as agreed. This is in line with Munanda (2017) who concludes that financial education is a key aspect in today’s financial environment as it provides relevant tools to a consumer to enable them to make prudent financial decisions. Saving, is one of the instruments of financial behavior which result in sound management of funds most of the student’s majority of the students tended to agree. Saving, investing, budgeting and borrowing are some of the instruments of financial behavior that if well equipped with financial education can result in sound management of funds by the youth (Munanda, 2017).

Financial literacy is a key survival skill that enables students to make informed decisions about proper management of funds. According to McCormick (2009) stated that one becomes a better financial manager if they have knowledge in basic financial investment concepts such as the ability to conduct basic calculations on interest rates and being able to understand the risk factor involved. Most students consider the usefulness and reliability of mobile banking and as it enhances efficiency of services.

The results indicated that one should be prepared at a tender age to be prudent financial managers as this will be key in bringing up solid adults where most of the students agreed, on the financial discipline is key when setting up an enterprise as it requires more commitment than anything else. According to Grubman, Bollerud and Holland (2011) they stated that youth should be prepared at tender age to be prudent financial mangers as this will be key in bringing up solid adults. The statement by Johnson and Sherraden (2006) is in line with the argument that proper upbringing of children to be more aware of their financial obligations enables them to have a better financial behavior when they
grow older. It is much cheaper and easier to train children as they have fewer financial obligations and are likely to adapt a prudent financial behavior based on how their mentors or family member behave.

Majority of the students agreed that incentives provided by the government and banks promote the savings aggregate among the youth. According to Munanda (2017), he stated that countries need to develop policies that encourage the youth to save more. For example, a country like Colombia has developed special market interest rates to enable the youth to obtain financial support affordably. The question on making the decision to use a banking facility, students consider the perceived usefulness and ease of awareness of the service and also the security features of the service where most agreed and availability of portable mobile phones has highly eased students need to bank and save on time. There was a positive correlation between spending behavior and mobile banking services indicating that the use mobile banking among the university students have increased due enhanced platform.

5.4 Conclusions

5.4.1 Effects of Mobile Banking Services on Saving Behavior
The study notes that mobile phone is the main driving component of the mobile banking initiative and behavioral patterns of students influence on saving behaviors. Financial services such as saving is more accessible via mobile banking as compared to walking to the bank which has allowed more students to have a virtual mobile bank account that is only accessed and operated via a mobile phone. This has led to more saving among the students and easily accessible at any time.

5.4.2 Effects of Mobile Banking Services on Spending Behavior
The study concludes that lack of financial education can result to wasteful spending behaviors among university students. Students are more concerned in accumulating material possessions which leads to making poor purchasing decisions among students. Most students also agreed that it is easy for them to access mobile banking loan facilities as compared to physically walking to the banking hall and accessibility of loan facilities has highly fueled more spending culture on the students.
5.4.3 How to Improve the Financial Behavior of University Students

According to the study, financial education is a key aspect in today’s financial environment as it provides relevant tools to make prudent financial decisions which improves student’s financial behavior. Saving, investing, budgeting and borrowing are some of the instruments of financial behavior that if well equipped with financial education can result in sound management of funds by students in the universities.

5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 Effects of Mobile Banking Services on Saving Behavior

The study recommends that mobile bank operators should have specific account for students for them to make deposits for saving at high interests. This will allow more saving among students which will be beneficial for both the banking and the students. The accumulation of saving for the students will boost their financial status in the long run.

5.5.1.2 Effects of Mobile Banking Services on Spending Behavior

The study suggests on the second objective that university students should be taught on preparing budgeting so that to help them to be strategic with funds as students are able to evaluate spending in comparison to savings. Parents should take an initiative of training students on having a budget on spending to their children as this will encourage proper management of funds by students.

5.5.1.3 How to Improve the Financial Behavior of University Students

Students should be prepared at a tender age, as this is a key recommendation of this study, in order to be prudent financial managers as this will be key in bringing up solid adults. The government should provide incentives to promote savings among the youths and banks should provide incentives to the youths to promote the savings aggregate among the youths. The policy makers should provide trainings to improve the financial behavior among the students so that they can be prudent in financial management.

5.5.2 Recommendations for Further Studies

Further study of the effects of mobile banking on the financial behavior of university students is recommended since the study mainly focused on one university. The research should therefore be replicated in other institutions (both private and public universities)
and the results compared to establish whether there is a consistency among university students. Further, studies can be conducted on the effects of mobile banking services on the saving culture among university students so that to establish the relationships.
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APPENDICES

APPENDIX II: INTRODUCTION LETTER

TO WHOM IT MAY CONCERN.

14th June, 2018

Dear Sir/Madam,

REF: PERMISSION TO CONDUCT RESEARCH – ANTONY N. GITAU
STUDENT ID. NO. 639817

The bearer of this letter is a student of United States International University (USIU)-Africa pursuing a Master of Business Administration.

As part of the program, the student is required to undertake a dissertation on "Effects of Mobile Banking Services on the Financial Behavior of University Students: a Case of United States International University - Africa." which requires him to collect data.

Please note that information provided will be treated with utmost confidentiality and will only be used for academic purposes.

Kindly assist the student get the appropriate data and should you have any queries contact the undersigned.

Yours Sincerely,

Prof. Amos Njuguna,
Dean – School of Graduate Studies, Research and Extension
Tel: 730 116 442
Email: anjuguna@usiu.ac.ke
APPENDIX II: STUDY QUESTIONNAIRE

Introduction

This questionnaire seeks to collect data on the EFFECTS OF MOBILE BANKING ON THE FINANCIAL BEHAVIOR OF UNIVERSITY STUDENTS. Kindly respond honestly. Your honest response to the questions is of high importance in developing beneficial conclusions for the study. All responses will be treated confidentially and will only be used for this research.

SECTION A: DEMOGRAPHICS INFORMATION

1. Gender
   - Male
   - Female

2. What is my Age Bracket?
   - Below 18 years
   - 19 to 24 years
   - 25 to 30 years
   - above 30 years

3. What academic year am I in?
   - Freshman
   - Sophomore
   - Junior
   - Senior

4. Sector of employment.
   - Public sector
   - Private sector
   - Self-employed
   - Semi-government agency
   - Unemployed

5. Do I use mobile banking services when making purchases?
   - Yes
   - No

6. If yes in 6 above how often do I use the service?
   - Very often
   - Sometimes
   - Rarely
   - Never

7. On average how much do I spend using mobile banking in a day?
   - Below 100
   - Between 100-500
   - Between 501-1,000
   - Between 1,001-2,500
   - Between 2,501-5,000
   - Above 5,001

8. Has the introduction of mobile banking services increased my spending rate?
   - Yes
   - No
9. Do I prefer to use mobile banking services to make my purchases as compared to traditional methods?
   Yes  □  No  □

SECTION B: EFFECTS OF MOBILE BANKING SERVICES ON THE SAVING BEHAVIOR

Please indicate your opinion as per the level of disagreement or agreement with the outline statement using 1 to 5 scale guidelines. 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree.

<table>
<thead>
<tr>
<th>STATEMENTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving behavior is the combination of a saving need, a saving decision and a saving action.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saving is depositing funds in the bank, investing, paying off mortgages and speculation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I use my mobile to conduct mobile banking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile phones are the main driving component of the mobile banking initiative.</td>
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<td>Financial service providers have become more interested in the behavioral patterns of consumers</td>
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<td>I find financial saving more accessible via mobile banking as compared to physically walking to the bank as it was traditional.</td>
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<tr>
<td>Mobile banking service allows users to have a virtual bank account that is only accessed and operated via a mobile phone.</td>
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<tr>
<td>Mobile money savings account allows the account holder to borrow and save funds through their mobile phones while earning an interest on their savings.</td>
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<tr>
<td>I find mobile banking to be a complementary to other saving mechanisms.</td>
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<td>Availability of portable mobile phones has highly eased my need to bank and save on time.</td>
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<tr>
<td>It is easier and convenient to check account statements as it is immediate with only internet and a mobile device.</td>
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SECTION C: EFFECTS OF MOBILE BANKING SERVICES ON THE SPENDING BEHAVIOR

Please indicate your opinion as per the level of disagreement or agreement with the outline statement using 1 to 5 scale guidelines. 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree.

<table>
<thead>
<tr>
<th>STATEMENTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>High expenses put me in a unique situation resulting to managing funds differently.</td>
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<tr>
<td>Lack of financial education can result to wasteful spending behaviors when one is unemployed.</td>
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<tr>
<td>Financial prudence of my parents towards managing finances affects me.</td>
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<td>Spending behavior is an escalating predicament that affects me.</td>
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<td>I am more concerned in accumulating material possessions which leads me to making poor purchasing decisions.</td>
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<tr>
<td>It is easy for me to access mobile banking loan facilities as compared to physically walking to the banking hall for the same.</td>
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<tr>
<td>It is easy for me to access loan facilities which has highly fueled my spending culture.</td>
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<tr>
<td>Lack of financial experience before joining the university often contributes to poor financial habits.</td>
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<tr>
<td>My spending habits have been associated with a certain desire of obtaining certain level of social status.</td>
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<td>Early exposure to financial behaviors can influence one’s rationale behind spending and saving.</td>
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<td>My budgeting helps to be strategic with funds as I am able to evaluate my spending in comparison to savings</td>
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<td>Mobile banking is a platform that provides banking services to its customers regardless of their location.</td>
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<td>Advancement technology has resulted in 4G service which is a faster and has increased the speed in the use of mobile services.</td>
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<tr>
<td>Use of mobile banking as a banking option is cheaper than other banking</td>
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</table>
SECTION D: HOW TO IMPROVE THE FINANCIAL BEHAVIOR OF UNIVERSITY STUDENTS.

Please indicate your opinion as per the level of disagreement or agreement with the outline statement using 1 to 5 scale guidelines. 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree.

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<tbody>
<tr>
<td>Financial education is a key aspect in today’s financial environment as it provides relevant tools to make prudent financial decisions.</td>
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<td>Saving, is one of the instruments of financial behavior which result in sound management of funds.</td>
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<tr>
<td>Financial literacy is a key survival skill that enables me to make informed decisions about proper management of my funds.</td>
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<tr>
<td>I consider the usefulness and reliability of mobile banking and whether it enhances efficiency.</td>
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<td>One should be prepared at tender age to be prudent financial mangers as this will be key in bringing up solid adults.</td>
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<tr>
<td>Financial discipline is key when setting up an enterprise as it requires more commitment than anything else.</td>
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<td>The government should provide incentives to promote savings among the Youths.</td>
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<tr>
<td>Banks should provide incentives to the youths to promote the savings aggregate among the youths.</td>
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<td>When making the decision to use a banking facility, I consider the perceived usefulness and ease of awareness of the service.</td>
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<td>One of the security features of the mobile banking service is the use of a mobile pin number.</td>
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<td>Availability of portable mobile phones has highly eased my need to bank and save on time.</td>
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.................................................. THANK YOU..................................................