THE IMPACT OF ACCESSIBILITY OF MOBILE LOAN APPLICATIONS ON THE LEVEL OF SAVINGS AMONG STRATHMORE UNIVERSITY STUDENTS.

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[April, 2020]

Declaration

I declare that this is my original research work carried out during the period of my study at Strathmore University and has not presented for the award of a degree in any university. To the best of my knowledge and belief, the Research Project contains no material previously published or written by another person except where due reference is made in the Research Project itself.

Student's signature.....

Date 10/2/21

This research project has been submitted for examination with my approval as the supervisor.

Supervisor's signature.....

Mr. Josphat Manani

Date 10/2/21

ACKNOWLEDGEMENT

I would like to express my gratitude to God and my parents for encouraging and inspiring me in making this project a success. My appreciation goes to my supervisor, Prof. Josphat Manani for the continued intellectual support, guidance and encouragement during the research period. I also recognize assistance from my friends and classmates. To all the respondents who spared time to fill in the questionnaires, thank you!

DEDICATION

To the almighty God, your grace has been sufficient every day.

To my dear parents, Paul Kimaku and Lucy Wamboi, thank you for always being there for me. You continue to inspire me to do my best and never give up.

To my colleagues, Obed Rotich and Gabriella Jepkirui for the constant motivation and prayers for me to complete despite the tough times. To Margaret Awino, for her enthusiasm and always reading my work and ensuring proper English grammar.

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LIST OF ABBREVIATIONS

FSD	Financial Sector Deepening Sector
ATM	Automated Teller Machine
CAK	Communications Authority of Kenya
CBA	Commercial Bank of Africa
KCB	Kenya Commercial Bank
TAM	Technology adoption model
PU	Perceived Usefulness
PEOU	Perceived Ease of Use
TRA	Theory of Reasoned Action
TPB	Theory of Planned Behavior
ROSCA	Rotating Saving and Credit Associations
ASCA	Accumulated Savings and Credit Associations
GDP	Gross Domestic Product
APPS	Applications
UTUAT	Unified Theory of Acceptance and Use of Technology

ABSTRACT

This study looks into the impact of accessibility of mobile loan applications on the level of savings among Strathmore University students. The continuous borrowing culture introduced by mobile loan applications is discussed as being a key factor that inhibits saving efforts of the youth. The life cycle hypothesis model coupled with the technology adoption model will give this study an insight into the saving and borrowing culture of the youth. How then does endless borrowing prevent the youth from creating good saving habits? With regards to borrowing and saving amongst individuals differ as a result of behavior, knowledge and mindset. The study therefore intends to investigate how number of mobile loan apps on each Strathmore University student's phone influences the level of savings, how the existence of knowledge about the mobile loan applications influences the level of savings among Strathmore University student and how the level of usage of mobile loan applications impacts the level of savings among Strathmore University students. A descriptive study design was used whereas the estimated sample size was 384 students but only 100 respondents took part in the survey. The study employed a voluntary sampling method by use of online survey which was done by the Strathmore University students order to investigate the factors that correlate students' saving and borrowing patterns using mobile applications. A multiple linear regression model was applied using the STATA software to execute the analysis. Results revealed that there was a very weak correlation between quantity, knowledge and frequency of access from mobile loan applications and the level of savings among Strathmore University students. In addition, the more a student was equipped with the knowledge of loan apps decreased a chance for them to save.

Keywords: Accessibility, Mobile loan applications, saving applications, level of savings, knowledge, university students.

CHAPTER 1
INTRODUCTION

1.1 Background of the study

The adoption of mobile loan applications has enabled individuals to spend, save time, transfer money anywhere and anytime at a click of a finger without the use of formal bank accounts (Hove & Dubus, 2019). There are so money lending applications in Kenya due to the rise in mobile technology. For instance: Mshwari, Tala, Branch, Timiza and many others (Alphonsine, 2017). MPESA is the most widely used mobile money transfer platform in Kenya. The activation is quite simple; using a -four digit PIN after registration one can send, buy goods, pay bills, access loans and withdraw cash (Cook & McKay, 2015)

However, lending services have been made possible by the ballooning financial technology industry due to the rise of mobile lending apps and services in the financial technology industry. Mobile banking has enabled a smart phone owner to borrow from as little as 500 shillings to as much as 70,000 shillings without breaking into a sweat. All he or she needs is to be social media savvy. Having a social media account, such as a Facebook account, is understood by both the online loan apps and the borrowers to be an unstated primary requirement for accessing a loan.

Easy accessibility to mobile applications has made it possible to attract huge numbers of consumers. (Suri, 2017) Furthermore, most of the mobile applications only require national identity cards and social media accounts in order to access in which most university students have attained the legal age of 18years. Moreover, they enjoy the benefits of instant gratification which has also led to conditioning of students into appreciating instant loans to savings; why save when you can acquire a loan to meet the needs at hand?

Mobile money being affordable and easy to use, we can expect less educated people to adopt it for their saving purposes. Most of youths in Kenya have taken benefit of these applications by borrowing to meet their needs. However, the facade that these mobile loan applications creates to the youth is that they can be able to save yet the aims of the proponents of mobile loan applications are to ensure the cycle of borrowing never ends since that is the only way the make profits(Lee, 2017). These loan facilities appear as if they are helping but they also enable the spiking personal debt rates among the youth that prevent them from creating and observing a saving culture. The most prominent is the debt culture that has become a by-product of mobile-based lending (Pernille, Malene &Turf, 2020).

In addition, the tragedy of these applications is also that the cost of repaying these loans can be very punitive since the interest rates are way above the rates charged by the banks (Ofeh &Jeanne, 2017). While repaying these loans, the high interest rates make it even harder for the borrowers to have any other money left to save. FSD Kenya reports that many Kenyans are hooked in several mobile loans forcing them to jump from one service provider to another, sometimes being forced to borrow from one mobile loan app to pay another pushing them to a financial bondage. This initiates many to an endless borrowing culture characterized by the inability to save.

Loan apps make it easy for users to access credit anytime and anywhere. It is fast and easy to use; this is in line with the definition of the term accessibility mentioned above. Moreover, savings refer to income not spent; that is put aside for future use. An increase in personal savings could foster investment. In order to measure both accessibility and savings, an online survey will be designed and done by Strathmore University students to investigate the factors that correlate to students' saving and borrowing patterns using mobile applications. For instance, frequency of saving by the students, consistency usage of mobile apps just to mention a few.

The survey will target persons aged 18 years above (most likely have enrolled to University). The purpose of the survey that will be done by the students is to answer several questions regarding to their savings behavior in general. The challenges of saving among the youth brought about by the instant loan mobile technology together with the borrowing culture is what this project is intending to examine in depth.

1.2. Problem statement

According to the FSD Kenya Report states that the Kenyan entrepreneurial spirit starts at a very young age. For instance, teenagers start making their own money by selling items or pocketing parent's grocery change hence explains the rapid rate at which they are engrossed in the mobile loan apps usage today (J Winter, Luhrmann & Garcia, 2015). However, for many, young adulthood is the beginning of the debt accrual career (Addo & Houle 2016) thus lack of knowledge of interest rates charges on the loans has left them deal with problems with their personal finances hence accumulation of debts (Carlander & Hauff2019) This can be attributed to huge spending on priorities like housing, travel and lifestyle by the millennial despite the high level of standards in the country.

According to the Market Overview of mobile loans in Kenya report shows that 74.5 percent of the borrowers had between 2-6 mobile loans at any given time. This continuous borrowing has attributed to consumption culture and gambling among the youths (Swanton & Gainbury 2019) Furthermore, due to their efficiency and additional 'advantage' (no guarantors or collateral needed) most college and university students are now debt-ridden, with some unable to service these loans. Nevertheless, as youth transition to adulthood, the ability to save and accumulate assets becomes very important as they begin to accept financial responsibilities and plan for the future thus the need to cultivate a saving culture from a young age. However, poor spending habits due to financial indiscipline has been the leading cause of low saving trends majorly through lifestyle, entertainment, gambling despite the high living standards (Azmi & Ramakrishnan, 2018).

Furthermore, in the recent past there has been an introduction of mobile loans which has shifted the problem from not only poor spending but also getting into huge debts through easily accessible mobile loans killing the chances of saving at all. As a result, the frequent borrowing in these mobile loan apps has impaired the saving culture among the students as most would spend each coin in meeting the repayment deadline so as to remain viable for future loans. In the process, this may lead to poor mental health (Houle, 2020). Others may be experiencing depression, psychological distress, substance abuse, crime, low self- esteem, crime and stressed and suicidality (Lee, 2019). This is a societal problem that needs to be solved

In a case study in Ghana, (Cobla & Assibey, 2018) discussed the impact of technology on the spending habits of students and proved that active use of mobile money has a positive impact on students' spending habits. The results from the study revealed that banking products, such as ATM, are jointly used with mobile money but the two do not necessarily complement each other. As a result, people who use two or more technologies that facilitate access to funds or money at any point in time are more likely to spend more than those who use one. Wealthier students, those with higher income had relatively higher expenditures than their colleagues even though students who do not engage in any income generating activity alongside schooling are more extravagant relative to students who work.

(Cobla & Assibey, 2018) mainly focus on the impact of usage of the mobile money technology among students on their spending behavior. They conclude that mobile money technology which provides easy access to money can increase spending behavior of students and reduce the tendency of saving. The findings of the study clearly support the life cycle hypothesis "an individual consumes every income he receives" however the loan aspect has not been touched on. In comparison, not only has the problem shifted from only poor spending but also getting into huge debts through easily accessible mobile loans killing the chances of saving at all. This is what the study tends to solve hence the main aim of this study.

The big concern is that there is a possibility of having a generation which will have to survive on borrowing in future as the culture will be carried on. While there is sufficient evidence that access to mobile loan apps increases savings, it still remains unclear how mobile money affects the savings behaviors of individuals that are more likely to be University students. The objective of this study is to fill literature gap by analyzing the effect of mobile loans on the saving trends among University students.

1.3 Objectives of the study

The study aims at investigating the impact of accessibility to mobile loan applications on saving trends among Strathmore University students. Moreover, it will:

1. Investigate how number of mobile loan apps on each Strathmore University student's phone influences the level of savings.
2. Investigate how the existence of knowledge about the mobile loan applications influences the level of savings among Strathmore University students
3. Investigate how the level of usage of mobile loan applications impacts the level of savings among Strathmore University students.

1.4 Research questions

The study seeks to answer the following research questions:

1. How does the number of mobile apps on each Strathmore University student's phone influences the level of savings?
2. How does the existence of knowledge on mobile loan applications influence the level of savings among Strathmore University students?
3. How does the level of usage of mobile loan applications impact the level of savings among Strathmore University students?

1.5 Scope of the study

The data will be collected from an online survey and will be done by students to investigate the factors that correlate students' saving and borrowing patterns using mobile applications. The survey will be designed to target persons aged 18 years above (most likely have enrolled to University). The students targeted will be mainly from Strathmore University, Nairobi Kenya. The purpose of the survey that will be done by the students is to answer several questions regarding to their savings behavior in general in relation to their usage on mobile applications

1.6 Significance of the study

The findings of the study may assist different stakeholders.

a. The academicians or scholars

The study would act as a source of reference when they conduct their research in their nearby future. Due to its scarcity, scholars are able to analyze and study different behavior trends on debt ridden University students with regards to their saving habits in the nearby future.

b. Policy holders

This study is important to the (Communications Authority of Kenya), informing the policy formulation especially with regards to regulating the mobile money services in Kenya. For instance, lowering the interest rates on loans offered by the mobile applications. The research findings will assist in regulating the mobile money innovation and also in designing commitment products in improving the rate of savings among the youth.

c. Youth

The study emphasizes the youth especially University students to be cautious in how they use such technologies so as to minimize the negative influences such as indiscriminate spending and compulsive behavior and that using the technology can have a huge impact on spending patterns. Moreover, it will encourage and enhance them to save more and avoid deb

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter contains three sections: the theoretical review, empirical review and conceptual framework. In-order to have a clear understanding of the theoretical framework of the study, it is vital to understand the current saving status of university students together with different theories that support savings and mobile loan accessibility.

2.1 Theoretical framework

2.1.1 Current status of University students' saving behavior in Kenya.

According to the US-based Population Reference Bureau (PRB), "out of Kenya's total population of 49.7 million, 10.1 million are millennials adding up to the total ratio of youth (aged 15-24) as 20.3 per cent globally." However, the saving culture is low compared to other countries. In Kenya, the saving culture percentage still stands at 12 percent with regards to World Bank Report. A Nation Newsplex review of credit data revealed a drop of 10 percentage points in four years in the share of adults saving and an increase of 16 percent in the share that have a loan over the same period.

According to 2019 FinAccess study, published in partnership with the Kenya National Bureau of Statistics (KNBS) and the Central Bank of Kenya states that "those with savings make up 70 percent of adults, down from 80 percent in 2016, while half of them have active loans, up from 36 percent in 2006." As of 2017, Kenya recorded 39.1 percent unemployment rate according to recent report by United Nations registering the highest unemployment rate in East Africa. In line with this, World Bank projected unemployment rate in Kenya to rise to 10.5 per cent in 2019 before slowing to 10 per cent in 2020. This shows a consistent growth rate of unemployment over the years.

In a bid to cope up with the high living standards and growing rates of unemployment, most Kenyans have unfortunately fallen into the allure of mobile loans. Consequently, most of them are getting trapped day by day into a vicious cycle of debt as they seek to supplement income amid inflation.

According to the 2019 FinAccess Household survey, it was pointed out that 100 percent of respondents said they took a mobile loan because it was fast and easy to access. Saving has now proved to be daunting following a deterioration trend recorded since 2006.

However, in the recent past, most Kenyans initially saved with banks and SACCOs mainly so they could borrow against their savings. However, this changed once the digital lenders came to the scene and offered unsecured loans. The digital platforms have gone against the odds by providing loans not according to a person's saving but their ability to pay. Since its inception in 2012, CBA has disbursed mobile loans worth Sh230 billion, according to an FSD study. "With about a third of Kenyans estimated to be digital borrowers, many of them have been caught in debt traps, often borrowing loans to offset others. Over a third (35 per cent) of the digital borrowers have been on multiple applications looking for loans. It is estimated that 18.2 million of Kenyans own mobile phones and 35 percent of them have tried at least one digital mobile loan. About 20 per cent who have not said it was only because of lack of information."

Young adults are in many respects extra vulnerable borrowers. Past research show that they are generally more ignorant than older borrowers and, in many cases, have less ability to repay their loans (Kamleitner, Hoelzl & Kirchler, 2012). In the recent past, there has been a concern of the rising numbers of uptake of loans among universities' students. The young adults have landed into early indebtedness through borrowing from the apps (Walsemann, Gee, & Gentile, 2015). "If young people tend to borrow instant loans most offering high interest rates, they may be in great danger in future as they would end up in huge accumulation of debts (over- indebtedness)."

Research show that most of the university students are involved in gambling as the male gender taking the lead at varying frequencies could be once a week, a fortnight, month and quarterly. 50 percent indicated that they bet at least once a week, 28 percent at least once a fortnight, 12 percent at least once a month, 7 percent at least once in the past three months and 3 percent tend to be unknown. Almost 60 percent of university students are regular gamblers (Koross, 2018). Furthermore, others may be involved in drugs and substance abuse with a higher proportion being male university students. Age is also associated with increase in drug use, older students who are mainly the second years and third years tend to use drugs more than other years (Stephen, Munene & Oladipo, 2017). However, most of these university students do not

have a stable source of income where they could depend on. Due to the addictive nature of gambling and drug and substance abuse, they would prefer "quick" money hence this has been fueled majorly by easy accessibility of the loans with no security required.

Following the easy access and availability of mobile loans, students tend to desire to borrow in order to purchasing consumer products in which it then creates the feeling of financial deficit hence finally decide to borrow impulsively (Gärling et al., 2018). Poor spending habits coupled up with compulsive purchasing has been the major problem hindering most college and university students from saving (Cobla, 2018). However, following the low saving behavior of University and college students in Kenya, banks and insurance companies (Jubilee Insurance and Barclays bank) have been innovative and therefore taken initiatives in nurturing a saving culture among college and university students by launching products like "Baada ya Campo" and revamping their junior products respectively in order to save up for post university life, improving the youth's saving attitude and behavior.

The introduction of these mobile loans has amplified this problem making saving even more unnecessary for students as they can acquire the instant loans just at a click. This is a societal problem in general hence the borrowing culture may be passed to future generations if this problem is not resolved and ignored. There is a need for University Students to save more and reduce frequent borrowing as it relieves the financial burden and stress after graduating college or university hence a greater sense of financial freedom. University students are responsible for their own wealth hence they should strive to make better financial decisions currently and in the nearby future.

2.2 Life cycle hypothesis model

This theory describes the spending and saving habits of people in the course of their lifetime. Modigliani represents an attempt to deal with the way individuals dispose of their income over time. In relation to the modern theory of consumption, Dornbusch (1989) argues that "one's consumption does not only depend on his income, but also on his accumulated stock of wealth." However, students who own laptops, phones, tablets were considered less wealthy as these were basic academic requirements whereas those who possessed luxuries like cars were wealthier, represented the true wealth as expenses such as fuel and fluids. He further concludes that through cultivated lifestyle, current consumption is influenced by

past income and not accumulated wealth

Accordingly, the individuals take on debt when they are young hoping future income will pay it off. For instance, students take up extra or part-time jobs to supplement the "low" pocket money they receive from their parents and guardians. After earning more than what they had already had, they still would not save the surplus but rather gamble and purchase harmful products which may affect consumer's health like drug and substance abuse. They spend every bit of money they get or receive as pocket money plus the excess. There is a high prevalence of gambling among university students, at least more than 78 percent with the proportion of male being higher (Koros, 2018).

Recent research in Kenya indicated that 84 percent of youth aged 16-24 years were involved in drug abuse. Harmful alcohol use was found to be relatively higher 60.3 percent among male university students than females' 53.7 percent (Ndegwa, Munene & Oladipo, 2017). In order for the university students to manage such practices, they need to outsource other alternatives of income as the "low" pocket money cannot cater for their unquenchable addictions (Yawe & Kizito, 2014). These young people need "quick" money to quench their thirst hence many opt for these mobile loan apps due to its instant gratification the same way they would prefer gambling in the first place.

2.3 Technology adoption model (TAM)

Davis (1989) describes TAM model as a hypothetical model that shows how users come to accept new technology. Behavioral intention coupled up with attitude are main factors that lead people to use technology. Moreover, he explains the driving forces that influence their decisions in using it. They include: Perceived Ease of Use (PEOU) and Perceived Usefulness (PU). Perceived Usefulness is defined as the degree to which one believes that using a specific technology enhances one's job outcome. PEOU describes the degree to which a person believes that applying a certain technology is free of effort. One's behavioral decision to use innovation is determined by PU and PEOU (Cobla, 2018)

Furthermore, PU will be affected by PEOU in that, the easier is to use a technology, the more beneficial it can be when all other factors are held equal. Consequently, other theories have been done like Rogers' diffusion theory, Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA) which demonstrates better explanations to human behavior in accepting new technology. TAM acknowledges the existence of external forces such as social influence is an important factor to determine the attitude. People will have the attitude and intention to use the technology, but perception might change due to either age or even gender. Not only has innovation changed the actions of humans but also influenced their behavioral response.

Loan apps are very easy to use, fast and offer quick feedback. Unlike the banks, where one has to go to the physical institutions, loan apps offer secure and fast loans not forgetting less documentations and formalities thus save on time. Nevertheless, one can access mobile loan services anytime and anywhere at just a click thus shows PEOU and PU. Past research show that students are a group who easily adopt computer and mobile phone related technologies. These mobile loans mainly target the youth because they are tech-savvy and more vulnerable. Considering university students do not have sufficient source of income, they tend to borrow in -order to supplement the "low" pocket money they receive from parents and guardians. However, these loan facilities enable the spiking personal debt rates among the university students that prevent them from creating and observing a saving cultur

2.4 Empirical framework

The second section presents what other researchers have already written with regards to how the accessibility of mobile money influences the savings patterns of individuals, with an aim of understanding the research problem and identifying the existing research gaps.

Research show that high savings and low loans are major determinants of financial satisfaction (Ali, Rahman & Bakar, 2015). On an individual level, saving is quite useful in case of an emergency, long term security, reduces financial stress just to mention a few. Furthermore, the higher the saving ratio, the higher the level of investment hence boost economy in the long run. Along the line, most of the researchers in Kenya have based largely on the growth and impact of M-PESA on its users. However, M-Shwari is the most widely used beyond wallet product in Kenya, only a minority of the two-thirds of the population who are active mobile moneyusers are M-Shwari customers (FSD Kenya, 2015).

Moreover, (Asongu, 2019) shows that individuals registered with M-PESA are more likely to save than those who are not registered with M-PESA. In relation, (Jack & Suri, 2016) had similar findings which revealed that M-PESA users with a bank account are much more likely to save on M-PESA due to ease of use and safety. However, the studies never touched on the credit side of the mobile banking and their various effects on the users. Other studies have examined the effect of using mobile money on other vulnerable groups such as low-income earners, low educated and rural residents in Kenya (Suri & Jack, 2016). Theyconclude that mobile money increases the efficiency of allocation of labour and consumption hence resulting to poverty reduction.

However, (Raphael Ndegwa, 2014) argues that mobile money transaction negatively impacts on non-performing loans. The study contends that a growth in GDP (Gross Domestic Product) increases income and hence enhances the borrower's loan repayment capacity. In as much as the study established a positive relationship between unemployment rate and non- performing loans however, he mainly focused on mobile transaction costs, and how they affect people's banking behavior.

Loans used in a reasonable manner can give access to more expensive purchases as credit cards ease transactions by proving short term unsecured borrowing (Zinman, 2015). Financial literacy plays a huge role for credit behavior (Carlander & Hauff, 2018). (J Nilsson & JC Hauff, 2019) mainly focused on the ability of a young borrower to interpret given information as a consequence to making wise decisions by the method of storytelling. They concluded that people overstate what they can afford and proved that the level of literacy had a distinctive impact to interpret the sparse information hence a sensible level of borrowing. Along in the line, (Lusardi &Tufano, 2015) agree that more debt knowledgeable individuals have more advantageous loans on terms of costs hence less likely to be over-indebted.

(JG Blechman, 2016) mainly emphasizes credit reporting and the need to have regulatory measures on mobile credit with respect to consumer protection, credit reporting and use of mobile money services in order to promote financial inclusion without stifling innovation. The ease of use of mobile money has turned credit into an impulse purchase. Furthermore, the study states that the products target the most vulnerable and the least financially educated. The study focuses more on the need to have a regulatory measure on mobile credit.

Continued intention to use mobile money transfer services has a direct impact on the actual mobile transfer services usage (Mensah, 2020). The investigation was carried out on University of Ghana students and analyzed by using the UTAUT (Unified Theory of Acceptance and Use of Technology) model as a predictor of behavioral intention to use mobile money services. The main determinants of the model were performance expectancy, effort expectancy, social influence, facilitating conditions and service quality (Hamari & Ismail et al., 2017). A research questionnaire was designed and answered by the Ghana University students. It targeted a sample of 500 students but only 284 were captured and analyzed thus the results.

He concludes that continued intention to use mobile money transfer services has a positive influence on the actual use of mobile money transfer services. Mensah suggests measures should be put in place for rural areas to get access to more cheap and affordable mobile handsets in order- to provide platforms for the unbanked or sub-serviced rural population. However, the study never touched on the impact of

transactional costs of mobile money transfer on both continued intentions to use and actual usage.

2.5 Mobile money and savings

Traditionally, individuals mainly depended on informal saving methods for instance; ROSCAs, ASCAs, saving in form of a jewel or livestock and under a mattress. These methods are unsafe, inconvenient, and unreliable (Adan, 2016; Batista & Vicente, 2017). ROSCAs (Rotating Saving a Credit Associations) and ASCAs (Accumulated Savings and Credit Associations) may be inefficient in case of an emergency like borrowing a huge lump sum of money may take a while before receiving. Saving under a mattress or inform of a jewel or livestock could be stolen or land on unauthorized hands (Mwende, 2019). In comparison to mobile money, it is safer, convenient and more reliable to save in e-wallet. Mobile money enables quicker, cheaper, more reliable money transfers to both the rural and urban areas. Saving is quite important for college or university students as it relieves the financial burden and stress after graduation. They are responsible for their own wealth hence they should strive to make better financial decisions currently and in the nearby future.

2.6 Conceptual framework

The third section presents the explanations of how research problem may be explored. The conceptual framework mainly describes the relationships between the study variables (accessibility and level of savings) in relation to the study topic.

Mobile technology has been on the rise over the recent years both nationally and internationally. Mobile technology has led to the rise of money lending services whereby individuals can borrow loans anytime and anywhere. In a case study in Ghana, (Cobla & Assibey, 2018) discussed the impact of mobile technology on the spending habits of students and proved that active use of mobile money had a positive impact on students' spending habits. A total of 550 questionnaires were administered in the University of Ghana's main campus.

They mainly borrowed concepts from Dornbusch's theory of consumption which states that "one's consumption does not only depend on his income, but also on his accumulated stock of wealth. According to students, true wealth was measured in form "luxury" like cars for instance. Digital devices like laptops, phones, tablets and computers were considered as basic academic requirements as they were widely used among students. Students who owned and used cars were considered wealthier while those in possession of basic academic requirements were seen as less wealthy."

The method of analysis used in the study was the ordinary least square (OLS) regression to assess the influence of mobile money use on the spending behavior of students. From the outcomes, students who frequently save and receive money via mobile money spent about 20.16 Ghana Cedes more than the inactive ones. Consequently, active usage mobile money technology had a positive impact on students' spending habits. Furthermore, the results from the study revealed that banking products, such as ATM, were jointly used with mobile money but the two do not necessarily complement each other yet the majority (56.5 per cent) of respondents reported that their usage of mobile money did not change the frequency at which they use ATMs (Cobla, 2018)

As a result, the implication of this finding is that people who use two or more technologies that facilitate access to funds or money at any point in time are more likely to spend more than those who use one. Wealthier students, those with higher income had relatively higher expenditures their colleagues because students with more assets could generate more income hence afford higher expenses for instance renting out their cars. The higher the income, the higher ability to pay and spend more. However, students who did not work engage were more extravagant compared to students who work. For those who worked, they would save the income either for capital, top up on "low pocket money" they receive from parents and guardians, needs after school and future use hence would save more and spend less of what they receive from working.

In conclusion, (Cobla & Assibey, 2018) mainly focused on the impact of usage of the mobile money technology among students on their spending behavior. Students being a group that is easily drawn to adopt computer and mobile phone related technologies, mobile money has really impaired their level of savings. Mobile money technology which provides easy access to money can increase spending behavior of students and reduce the tendency of saving.

The findings of the study clearly support the life cycle hypothesis "an individual consumes every income he receives" however the loan aspect has not been touched on. In comparison, not only has the problem shifted from only poor spending but also getting into huge debts. Inaddition, due to easy access of credit, students tend to forget the importance of saving hence end up borrowing more to meet their unquenchable addictions.

2.7 Variables and their measurements

To measure how mobile money affects the saving behaviors of individuals, level of savings is treated as the dependent variable that characterizes the savings behavior of the individual while accessibility to mobile loans is the independent variable. The **dependent variable** will be level of savings whereas the **independent variable** that would be used in analysis is mobile loan access, which is a dummy variable that equal to 1 if an individual has access to mobile money otherwise it is zero. The **control variables** that would be used in this analysis are gender, level of education, year of study and age.

Below shows a summary of how both the variables; accessibility to mobile loan applications and level of savings will be measured.

Objectives	**Independent variable (Measuring accessibility to mobile loan apps)**	**Dependent variable (Measuring level of savings)**
Investigate how number of mobile loan apps on each Strathmore University student's phone influence the level of savings	Count the number of mobile loan applications present in the phone of Strathmore University student.	Assess presence of mobile saving app on each Strathmore student's phone
Investigate how the existence of knowledge about the mobile loan applications influences the level of savings among Strathmore University students	Determine the sources of information on mobile loan apps. (How did the Strathmore student get to know about mobile loan apps? For instance, Internet, reference from friends etc.)	Determine the proportion of savings depending on the level of income they receive for instance (in form of percentage)
Investigate how the level of usage of mobile loan applications impacts the level of savings among Strathmore University students.	Count average number of times a Strathmore student has had access to the mobile loan app in a duration of time (quarterly, yearly etc.)	Determine the number of times a Strathmore student saves with respect to period of time (weekly, monthly, daily, every fortnight, quarterly etc.)

In summary,

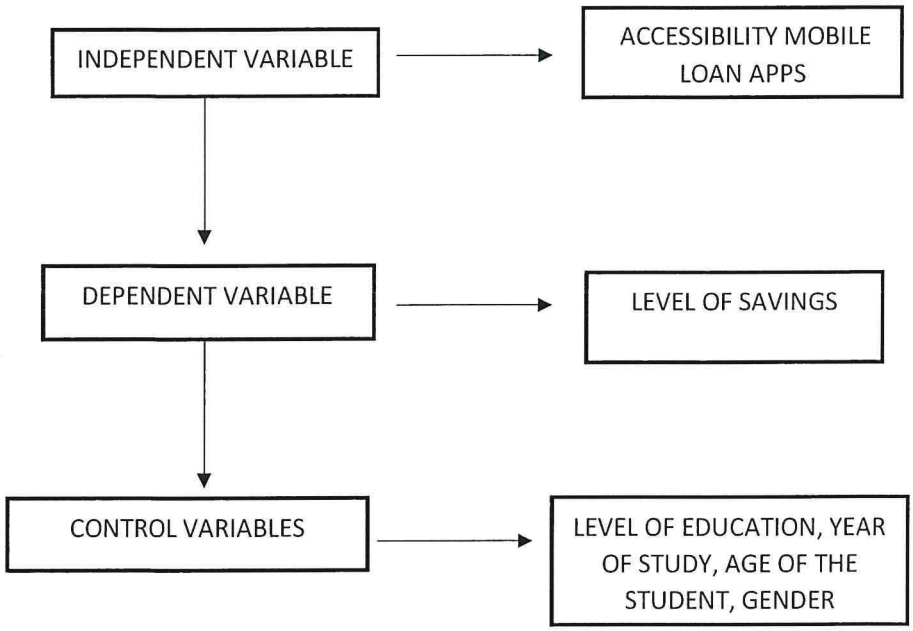

Figure 1: Variables and Measurements

CHAPTER 3:
METHODOLOGY

3.0 Introduction

This chapter sets out different stages on how research was carried out and how data was gathered. Precisely, the section covers research design, target population, data collection, data analysis and ethical considerations.

3.1 Research design

The study was conducted through a descriptive study design. The study involved more quantitative data rather than qualitative data. This is because the study variables both the independent and dependent variable; accessibility and level of savings respectively could be measured and expressed numerically. For instance, number present of mobile loan apps, frequency of access, level of usage and savings. This study assessed how accessibility of mobile loan apps impacted the level of savings among Strathmore University students. The main aim of the study was to solve the societal problem which involves the indebtedness of University students caused by their endless borrowing culture through easily accessible mobile loans hence low level of savings.

3.2 Population and Sampling

3.2.1 Study Population

The target population was Strathmore University students based in Nairobi County, Kenya. Young adults especially university students are in many respects extra vulnerable borrowers as they are more likely to be drawn to mobile technology. They are generally more ignorant than older borrowers and, in many cases, have less ability to repay their loans thus chosen as the study population.

3.2.2 Population Sample

Strathmore University consists of approximately 5000 students. The ratio of student population is 57 percent for male students to 43 percent for female students according to the Strathmore Annual Report. The online survey was designed to target persons aged 18 years above (most likely have enrolled to University). Moreover, all Strathmore University students pursuing undergraduate. Diploma and short courses were included in the collection of data of the study. The estimated sample size was calculated using Cochran's formula:

$n = (Z\ value^2\ p\ q)\ /e^2$

Where:

e is the margin of error.

p =estimated proportion of population

q= 1-p

Z value is found in the Z table at 95 percent confidence interval

$n= (1.96)^2 * 0.5(0.5)/ 0.5^2$

n=384 respondents

The estimated sample size was 384 respondents

3.2.3 Sampling technique

This study employed voluntary response sampling to select the sample. Voluntary response sampling is a technique that involves individuals participating in the survey willingly. The technique was preferred for this study as it was cost effective and convenient. The data relied mainly from a primary source of data. It was collected from an online survey and done by Strathmore University students to investigate the factors that correlate students' saving and borrowing patterns using mobile applications access. Therefore, the data was obtained from the responses given by Strathmore university students while taking part in the online survey. Moreover, interviews were done in order to collect focused data from primary data sources to achieve the objectives of the study.

3.3 Data Collection

3.3.1 Data Collection Tools

The data mainly relied majorly on a primary source of data. The aim of the study was to assess the impact of accessibility of mobile loan applications on level of savings among Strathmore University Students. The study involved more of quantitative data rather than qualitative data. Given the ideal time, online survey was the ideal tool for data collection. The online survey constructed included both open ended and close ended questions. The target group was also literate and were unlikely to have difficulties responding to survey items. Moreover, the perceptions, attitude and opinions were captured during interviews.

3.3.2 Research Procedure

This research was conducted from September 2020 to November 2020, under the guidance of my lecturers. Permission and clearance to conduct this study was given by the Strathmore Institute of Mathematical Sciences. The type of data collected was mainly quantitative and qualitative data collected from the Strathmore University students using online surveys, interviews and document analysis of different case studies done on accessibility of mobile loan applications and level of savings. The data was analyzed using the Microsoft Excel, STATA and presented in different forms such as the use of pie charts, tables and figures.

3.3.3 Data analysis

The data was obtained from a primary source of data. The study involves more quantitative data rather than qualitative data. The steps involved in data analysis include:

a) Collection of raw data

Firstly, data was collected from Strathmore University students through an online survey. The raw data was organized, coded and entered into an Excel Spreadsheet in order to give it meaning.

b) Descriptive statistics

Raw data was described in order to visualize the patterns, the trends with respect to the objectives of the study. They included mean, minimum, maximum, median, skewness and kurtosis.

c) Inferential statistics

Correlation was done in order to how know how strong or weak (positive or negatively) the relationship between accessibility of mobile loan apps and the level of savings. A value of +1 is total positive linear correlation, 0 is no linear correlation, and −1 is total negative linear correlation. In order to achieve this, Pearson's Correlation test was be carried out at significance level at 5%.

d) Regression analysis

The regression analysis was used to establish the relationship between the dependent and the independent variables in the study. The dependent variable will be level of saving. The independent variable used in analysis was mobile money access, which is a dummy variable that equal to 1 if an individual has access to mobile money otherwise it is zero if an individual report has no access to mobile money. The control variables used in this analysis were gender, level of education, year of study and age.

The research questions and the null hypothesis of the study were as follows:

1) How does the number of mobile apps on each Strathmore University student's phone influences the level of savings?

H_0: The number of mobile apps does not significantly increase the level of savings of Strathmore student.

2) How does the existence of knowledge on mobile loan applications influence the level of savings among Strathmore University students?

H_0: The existence of knowledge about mobile loan apps does not increase the level of savings of Strathmore University student.

3) How does the level of usage of mobile loan applications impact the level of savings among Strathmore University students?

H_0: The level of usage of mobile loan apps does not increase the increase the likelihood of Strathmore students to save.

The model that was used was Multiple Linear Regression model in order to find out the relationship between the variables.

$$\ddot{Y} = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \varepsilon_i$$

Where:

$\ddot{Y}$= Dependent variable (level of savings)

α = Constant

β_1 - β_4=coefficient of the independent variables (mobile loan access)

x_1-x_4 = the independent variables

ε_i = Error term

3.4 Quality Control

3.4.1 Bias and errors

Errors during research was controlled by ensuring that the interviewer carries out three interviews at most per day in-order to avoid fatigue hence mistakes. Furthermore, in analyzing and coding data, multiple people assisted me in-order to avoid computational error. Participants were given a chance to review the results after interviews incase errors occurred during entry of data. There was verification of the data collected with other sources like questionnaires. Bias was evaded through consciously interpreting the participants' responses objectively and not subjectively.

3.4.1 Sample Eligibility

The sample method used was voluntary response as the research involved a particular group of people (university students) with the relevant knowledge.

3.4.2 Inclusion Criteria

All Strathmore University students pursuing undergraduate, diploma and short courses were included in the study

3.4.3 Exclusion Criteria

All Strathmore University students taking Masters and PhD programs were excluded from the study.

3.4.4 Limitations of the study

The major limitations in this study were small sample size, inadequate reliable data, inadequate prior research studies on the topic, and bias. These factors affected the validity and reliability of the study. However, the technique used was the most suitable under the prevailing circumstances because of the global pandemic of the Corona Virus attack in which social distancing was applied and stressed upon individuals.

3.4.5 Ethical Considerations

Permission and clearance to conduct this study was given by the Strathmore Institute of Mathematical Sciences. Permission to conduct the research at the Strathmore University facility was given by the administration of Strathmore Institute of Mathematical Sciences. The major ethical problems in my study were:

1. Informed consent process

I made sure that the participants understood the implication of their decision to be involved in the study. The decision was made in the context of understanding the urgency and significance that arose from the study. Participants needed to understand how their data was stored, analyzed and used.

2. Privacy and confidentiality

Participants who shared personal details of their lives in confidence expected their data to be treated with respect and in relevant privacy consideration. Confidentiality was ensured in that no name or personal details was documented.

CHAPTER 4
DATA ANALYSIS AND PRESENTATION OF RESULTS

4.0 Introduction

This chapter entails results and findings obtained from the responses in the online survey. Raw data was described in order to visualize the patterns, the trends with respect to the objectives of the study whereas analysis was done by STATA. A total of 100 questionnaires were filled by Strathmore University students. The chapter covers the analysis of the general information of respondents, descriptive analysis, inferential statistics and lastly the regression analysis.

4.1 General Information

Gender of the respondents.

The distribution of respondents by gender as shown in the figure 4.1 below. The figure show that male students accounted for 33% and 67% of the respondents were female. The results indicate that majority of the respondents were female.

4.1.1 Gender of the respondents

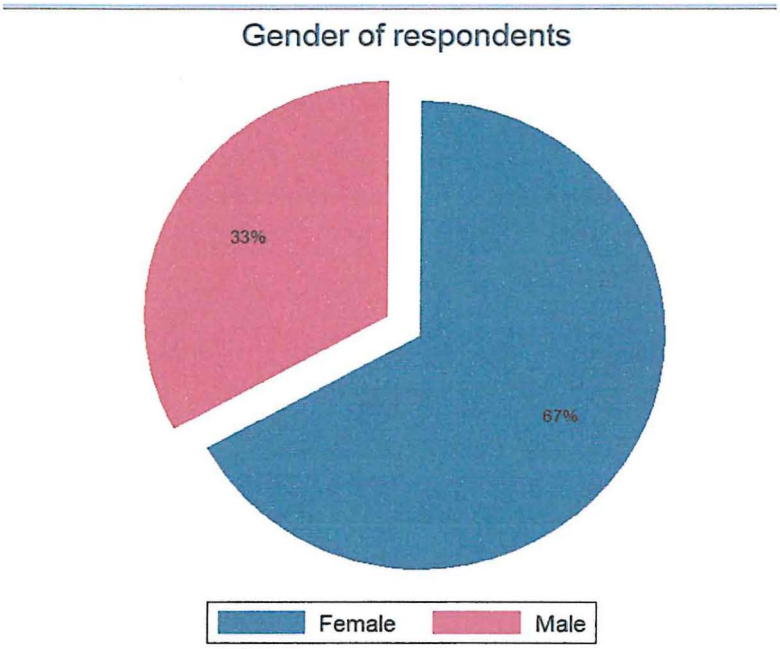

Figure 2: Gender of the respondents

4.1.2 Age of the respondents

The pie chart below shows majority of the University students were aged 21 (30%) with the minority were 18 years (2%).

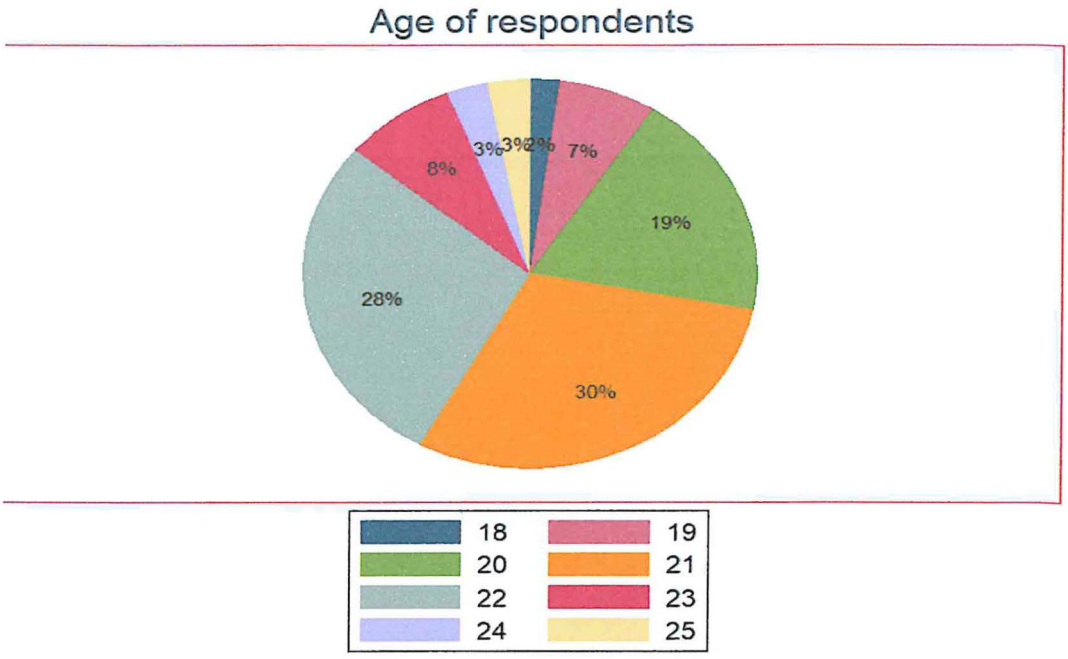

Figure 3: Age of the respondents

4.1.3 Level of education

As presented in the table below, 92% of the respondents were undergraduate students while the minority were students who took part in diploma courses (1%). 41% of the university students were mainly 3rd years and 4th years.

```
. tab educcodes
```

educcodes	Freq.	Percent	Cum.
Diploma	1	1.00	1.00
Other	4	4.00	5.00
Short course (ACCA,CPA)	3	3.00	8.00
Undergraduate	92	92.00	100.00
Total	100	100.00	

Figure 4: Level of education

4.1.4 Knowledge of mobile saving applications / mobile loan applications

As shown in the figure below, majority of the students who knew about mobile loan applications were more (98%) compared to those who knew about mobile saving apps (79%).

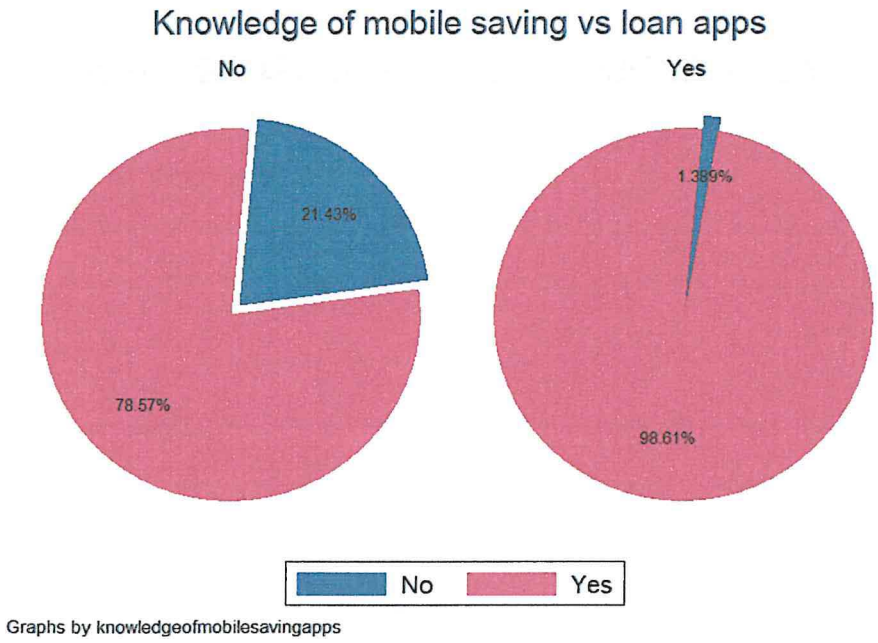

Figure 5: Knowledge of mobile loan apps vs saving apps

4.1.5 Have you ever used a mobile loan app / saving app?

From the figure below about 65% of the respondents have ever used mobile loan apps whereas 45% have used saving apps.

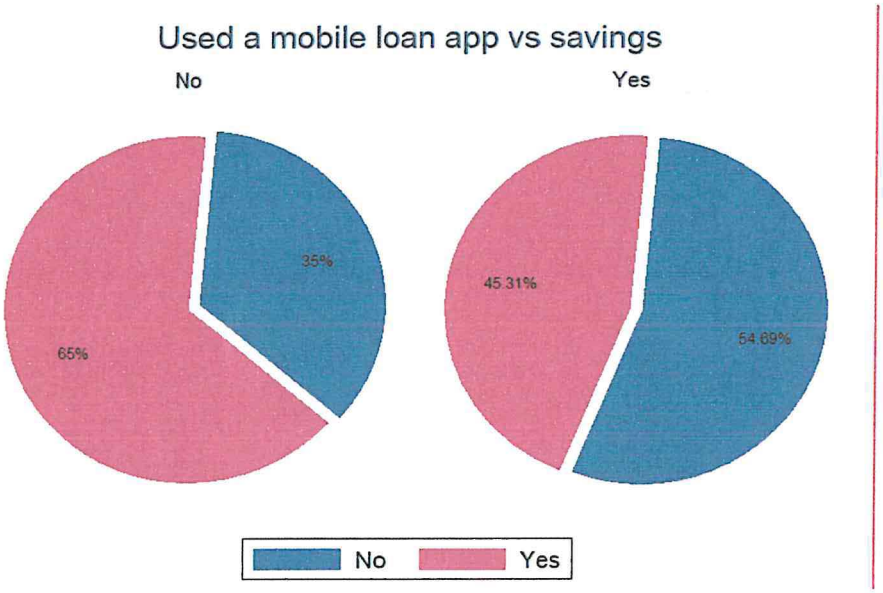

Figure 6:Usage of mobile loan / saving app

4.1.6 Sources of income vs expenditure.

From the figure below, the main source of income of the respondents is pocket money (79%) followed by other ways (12%) and the least being the scholarship (1%). From the findings, the maximum range of the income set aside for savings was Ksh.100-500 with a 45% percentage whereas the minimum was 5%, above Ksh.5000. However about 39% of the respondents spend more money on entertainment, 27% on shopping and 18% on recharges while 61% of the respondents stated that there level of expenditure is higher than their saving pattern. Furthermore, 16% of respondents reported that their saving is equal to their spending whereas 23% saved more in comparison to their expenditure.

```
. tab  sourceofincome
```

sourceofincome	Freq.	Percent	Cum.
Other ways	12	12.00	12.00
Part-time job	8	8.00	20.00
Pocket money	79	79.00	99.00
Scholarship	1	1.00	100.00
Total	100	100.00	

Figure 7: Sources of income

4.2 Descriptive analysis

Using STATA to analyze the collected data, the average mean of the Strathmore University students who participated in the survey was 21 years, ranges of the ages were 18 -25 (minimum and maximum, respectively. The total sample size collected was 100 with highest and minimum number of mobile saving and loan app as 4 and 0 respectively.

4.2.1 Summary of the statistics

```
. summarize  age currentyearofstudy numberofsavingapps numberofmobileloans

    Variable |        Obs        Mean    Std. Dev.       Min        Max
-------------+---------------------------------------------------------
         age |        100       21.26    1.397111        18         25
currentyea~y |        100        3.18     .8454274         1          4
numberofsa~s |        100        1.07    1.208179         0          4
numberofmo~s |        100        1.28    1.348999         0          4

.
```

```
. sum numberofmobileloans numberofsavingapps frequencyofborrowfromthemobilelo, detail

                    numberofmobileloans
-------------------------------------------------------------
      Percentiles      Smallest
 1%           0              0
 5%           0              0
10%           0              0       Obs                 100
25%           0              0       Sum of Wgt.         100

50%           2                      Mean               1.28
                     Largest         Std. Dev.      1.348999
75%           2              4
90%           3              4       Variance       1.819798
95%           4              4       Skewness      .4733754
99%           4              4       Kurtosis      1.991616
```

numberofsavingapps

Percentiles		Smallest		
1%	0	0		
5%	0	0		
10%	0	0	Obs	100
25%	0	0	Sum of Wgt.	100
50%	1		Mean	1.07
		Largest	Std. Dev.	1.208179
75%	2	4		
90%	3	4	Variance	1.459697
95%	3	4	Skewness	.8670253
99%	4	4	Kurtosis	2.598152

Figure 8: Summary of the statistics

The average number of mobile loan and saving apps was fairly the same. The average obtained from the above figure is 1. However, at the 50% percentile, the median of the number of loan apps is twice the number of saving apps in each student's phone.

In addition, the variance of the number of mobile loan app was slightly higher than the number of mobile saving apps. From both the analysis, the distributions were light tailed as kurtosis was less than 3. The skewness was close to 0 thus the data set was normally distributed.

4.3 Inferential Statistics

4.3.1 Pearson's correlation test between number of mobile loans and the level of savings.

Correlation was done in-order to how know how strong or weak (positive or negatively) the relationship between accessibility of mobile loan apps and the level of savings. Pearson's Correlation Test was done at significance level at 5%. The -0.0328 demonstrates weak negative correlation between the accessibility of mobile loan apps and level of savings.

```
. pwcorr numberofmobileloans  levelofsavings, obs sig star(5)

             | numbe~ns levelo~s
-------------+------------------
numberofmo~s |   1.0000
             |
             |      100
             |
levelofsav~s |  -0.0328   1.0000
             |   0.7458
             |      100      100
```

Figure 9:Pearson's correlation test between number of mobile loans and the level of savings.

4.3.2 Pearson's Correlation between the number of mobile loan apps and saving apps in each student's phone.

The 0.3411 demonstrates weak correlation between the number of mobile loan apps and saving apps in each student's phone.

```
. pwcorr numberofmobileloans numberofsavingapps

             | numbe~ns numbe~ps
-------------+------------------
numberofmo~s |   1.0000
numberofsa~s |   0.3411   1.0000
```

Figure 10: Pearson's Correlation between the number of mobile loan apps and saving apps in each student's phone.

4.3.3 Pearson's Correlation between level of income proportion and knowledge of loan apps

The -0.0998 demonstrates weak negative correlation between the level of income proportion and knowledge of loan apps.

```
. pwcorr incomeproportion knowledgeloanapps

                  | incomepr~n knowle..
------------------+---------------------
incomeprop~n      |   1.0000
knowledgel~s      |  -0.0998    1.0000
```

Figure 11: Pearson's Correlation between level of income proportion and knowledge of loan apps

4.3.3 Pearson's Correlation between the frequency of savings and frequency of loan accessibility among the students.

The 0.3354 demonstrates weak correlation between the frequency of savings and frequency of loan accessibility among the students

```
pwcorr freqsave  freqloanaccess

             | freqsave freqlo~s
-------------+------------------
    freqsave |   1.0000
freqloanac~s |   0.3354   1.0000
```

Figure 12: Pearson's Correlation between the frequency of savings and frequency of loan accessibility among the students.

4.4 Regression Analysis

4.4.1 Regression analysis between the number of mobile loan apps and saving apps in each student's phone.

```
. regress numberofsavingapps numberofmobileloans age currentyearofstud educcodes  gendercodesl

      Source |       SS       df       MS              Number of obs =     100
-------------+------------------------------           F(  5,    94) =    4.32
       Model |  26.984583      5  5.39691659           Prob > F      =  0.0014
    Residual |  117.525417    94  1.25027039           R-squared     =  0.1867
-------------+------------------------------           Adj R-squared =  0.1435
       Total |     144.51    99  1.45969697           Root MSE      =  1.1182

------------------------------------------------------------------------------
numberofsavingapps |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------------+----------------------------------------------------------------
numberofmobileloans |   .3535711    .08624     4.10   0.000     .1823395    .5248027
                age |  -.0300074   .0839126    -0.36   0.721    -.1966179     .136603
currentyearofstudy |   .0646412   .1445299     0.45   0.656    -.2223264    .3516087
          educcodes |   .1415714   .2428125     0.58   0.561    -.3405385    .6236812
       gendercodesl |   .6360881   .2532197     2.51   0.014     .1333143    1.138862
              _cons |   .0771836   1.850082     0.04   0.967    -3.596198    3.750565
------------------------------------------------------------------------------
```

Figure 13: Regression analysis between the number of mobile loan apps and saving apps in each student's phone.

4.4.2 Regression between the level of income proportion and the existence of knowledge of loan apps

```
. reg  incomepropotion knowledgeloanapps gendercodes1 educcodes currentyearofstudy age
```

Source	SS	df	MS		
Model	3.98682327	5	.797364654	Number of obs	= 100
Residual	78.6031767	94	.836204008	F(5, 94)	= 0.95
				Prob > F	= 0.4505
				R-squared	= 0.0483
				Adj R-squared	= -0.0024
Total	82.59	99	.834242424	Root MSE	= .91444

incomepropotion	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
knowledgeloanapps	-.0458975	.054913	-0.84	0.405	-.1549285	.0631335
gendercodes1	.2564049	.204383	1.25	0.213	-.1494023	.662212
educcodes	.0867988	.1994258	0.44	0.664	-.3091658	.4827634
currentyearofstudy	.1411039	.1178091	1.20	0.234	-.0928089	.3750166
age	-.0006778	.0710734	-0.01	0.992	-.1417957	.1404402
_cons	1.974944	1.638361	1.21	0.231	-1.27806	5.227948

Figure 14: Regression between the level of income proportion and the existence of knowledge of loan apps

CHAPTER 5
DISCUSSION, CONCLUSIONS, AND RECOMMMENDATIONS

5.0 Introduction

This chapter includes four sections: summary, discussion, conclusions and recommendations respectively. The first section entails summary followed by discussion of the major findings of the study with regards to the specific objectives. The third section discusses the conclusions and recommendation based on the specific objectives obtained in the fourth chapter.

5.0.1 Summary

The main aim of this study was to solve the societal problem that involves the indebtedness of university students caused by their endless borrowing culture through easily accessible loans. The study was guided by the following objectives to investigate how number of mobile loan apps on each Strathmore University student's phone influenced the level of savings, the existence of knowledge about the mobile loan applications influenced the level of savings among Strathmore University students and the level of usage of mobile loan applications impacted the level of savings among Strathmore University students.

The study was conducted through a descriptive study design and targeted a sample of 384 Strathmore University students but only 100 respondents took part in this survey. The data collected was mainly relied on primary source of data by use of online questionnaires. The data was analyzed through a software package, STATA whereas descriptive, inferential statistics and regression were obtained.

5.1 Discussion

5.1.1 Sources of income

The study mainly revealed that the main source of income of Strathmore University students was pocket money that they receive from their guardians /parents. About 79% of the respondents confirmed this. Furthermore, majority of the students spent more money on entertainment, shopping and recharges (39%, 27% and 18% respectively). Moreover 61% stated that their saving patterns was less compared to their level of expenditure. In follow up interviews, some of the respondents (20%) reported that occasionally they had to take part time jobs in order to supplement the pocket money

they receive from their guardians. Another 15% of the students stated that they ended up borrowing from friends and family while 40 % of the students resorted to the mobile loan apps due to its instant gratification.

5.1.2 Level of usage of the apps

The study revealed that the number of students who had more than 2 mobile loan app were 12% higher compared to those who had more than 2 saving apps. However, the average of mobile loan and saving apps in each student's phone was slightly the same. From the findings, the average and median number of mobile loan and saving apps was 1 and twice the number of mobile saving apps for loan apps respectively. Furthermore, there was a weak correlation between the number of mobile loan apps and saving apps of 0.3411 at 5% significant level. Moreover, the number of loan apps influenced the number of saving apps among the students. From the regression analysis, a one percentage increase of mobile loans increased the number of saving apps by 35% thus the coefficient of number of mobile loans was statistically significant.

5.1.3 Existence of knowledge of mobile apps

The study also revealed that there was a weak negative correlation between the level of income proportion set aside for savings and knowledge of loan apps of -0.0998 at 5% significance level. As per the findings, majority of the students (98%) who knew about the existence of mobile loan apps. 65% of the respondents have ever used them before, which is quite high as compared to the saving app users. Moreover, a one percentage increase in the knowledge of loan apps decreased the level of income proportion set aside for savings by 4.5%.

5.1.4 Frequency of loan access

The study revealed that there was weak correlation between the frequency of loan access and frequency of savings of 0.3354 at 5% significance level among the students. 65% of the respondents had had access to mobile loan apps whereas 45% of the respondents have had access to saving apps. As a result, frequency of loan access influenced the frequency of saving, the more people borrowed the lower the access of saving. From the findings, the higher the university students borrow, the lesser the chance to save.

5.2 Conclusion and recommendations

The study has aimed to assess the impact of mobile loan applications on the level of savings among Strathmore University students. The data was collected by means of online survey in order to investigate their savings behavior in general in relation to their usage of mobile loan apps. Multiple linear regression model was used to obtain the results obtained from the study. The results of the study agreed with some of other studies while contradicted some.

The findings agree with Kokemuller (2013), who argues that borrowing from family and friends may be advantageous to students because there is no pressure to pay back the loans and no repayment deadline as compared to the mobile loans. There is trust among their relatives hence making it a higher chance for them to be granted loans unlike the banks/ mobile loans. The study concludes that the hypothesis does not hold for this target group thus we reject the null hypothesis as the results did not match the hypothesis.

From the findings, the correlation between the variables was very low hence the regression output differs. For instance, a one percentage increase of mobile loans increased the number of saving apps by 35%, a one percentage increase of knowledge of loan apps decreased the level of income proportion set aside for savings by 4.5%. This means that the more a student is equipped with the knowledge of existence of presence of loan apps decreased a chance for them to save as they are prone to borrow given that their low pocket money they receive from guardians and parents.

Despite the several limitations that the study faced including the small sample size and inadequate prior research studies on the topic, the study further recommends parents / guardians to cultivate a saving culture among their children such that as they grow, they can shun away from mobile loans in the future. Furthermore, there is need for university students to be aware of the consequences of taking loans and are encouraged to save more in-order to break the cycle of endless borrowing.

6.0 SAMPLE OF THE ONLINE SURVEY

6.0.1 Personal details

1. Age
2. Gender
   a) Male b) Female
3. Educational qualification

a) Undergraduate level b) Diploma c) Short course (ACCA, CPA) d) Others (If so, specify)

4. Year of study

6.0.2 Mobile loan applications

1. Have you ever heard about mobile loan applications?
   a) Yes b) No
2. How did you get to know about mobile loan applications?
   a) Internet b) Reference from friends and families c) Mass media (TV, radio etc.)
3. Have you ever used a mobile loan application?
   a) Yes b)No
4. If yes, how many mobile loan apps have you ever had?
   a) 0 b)1-2 c) 3 d) Above 3
5. What was the purpose of the loan?
6. How frequent do you borrow from the mobile loan apps?

6.0.3 Mobile saving applications

1. Source of income

a) Pocket money b) Scholarship c) Part time job d) Other ways (specify)

2. Do you have savings?

a) Yes b) No

3. Have you ever heard about mobile saving applications?

   a) Yes b)No

4. Have you ever saved in a mobile saving app?

   a) Yes b)No

5. How many mobile saving apps have you ever had?

   a) 0 b)1-2 c) 3 d) Above 3

6. How often do you deposit money in your mobile saving account?

   a) Once a week b) Once a month c) Once a year d) More than once a year e) Not at all

7. What amount of money do you save per month?

   a) Ksh.100-500 b) Ksh.500 -1,000 c) More than Ksh.1000

8. From the following areas where did you spend more money?

a) Entertainment b) recharges e.g. airtime and bundles c) Shopping d) Others (specify

9. What is your saving and spending status?

a) Saving less than spending b) Saving equal to spending c) Saving greater than spending.

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